Middle California Region
HA/HB/C3
Nutrition
Poisonous Plants

In General:

- Poisonous plants come in all shapes and sizes and grow anywhere.
- Many ornamental shrubs and trees are as deadly to the horse as they are pleasing to the eye.
- Horses don't like the taste of most poisonous plants and will not eat them unless forage is low.
- 100's of poisonous plants are found in North America and many are known by different names.
- Poisonings can be chronic or acute. Chronic poisonings occur over days, weeks to months and may be reversible if recognized early enough and treated. In the case of chronic poisoning either the level of the toxin in the plant is low or the horse is consuming a little at a time. Plants that cause acute poisonings are so toxic that a mere morsel can kill a horse. Death is usually imminent once the symptoms appear.
- The only real weapon against plant poisoning is prevention. Most poisons have done their damage by the time it is recognized and there are very few antidotes to the poison.
- Therefore, provide adequate forage (horses are picky and usually only eat poisonous plants when nothing else is available); recognize boredom (idle horses are more susceptible to eating such plants than active ones); check out new surroundings (some plants are region specific- if you don't know take to local county agricultural extension office); watch what you use for ornamental plants near your horses pasture.

The organ systems affected in CHRONIC poisonings include:

1. **LIVER**- signs of damage include photosensitization (excessive reaction of unpigmented or white areas of the skin to sunlight with sunburn, redness and inflammation), depression, weight loss, jaundice (yellowing of the whites of the eye and mucous membranes), and anemia (low red blood cell count). Examples: tansy ragwort, groundsel, tarweed, rattlebox, alsike clover.
2. **NERVOUS SYSTEM**- problems with walking, standing or eating. Examples: locoweed, star thistle, Russian knapweed, sagebrush, bracken fern.
3. **GASTROINTESTINAL PROBLEMS** – colic, diarrhea, salivation. Examples: buttercup, deadly nightshade, jimson weed, oak tree leaves and acorns, chestnut and buckeye trees, Castor oil plants and black locust trees (poisonings and death have occurred in horses tied to this tree).
4. **OTHER**: laminitis with black walnut shavings or sawdust, nettles and burrs can cause sores and ulcers in the mouth, photosensitization and sunburn – St. John's Wort and buckwheat.

The organ systems affected in ACUTE poisonings include the HEART, RESPIRATORY and NERVOUS systems.

The plants associated with acute poisonings include: wilted wild cherry, blue flax, elderberry, the rapidly growing stages of Johnson or Sudan grass, yew, poison hemlock, death camas, larkspur, monkshood, red maple leaves (less than 1 ounce can kill a horse), avocado trees (not the fruit), snakeweed and jimmy weed.

Below are some of the poisonous plants found in our area:

LUPINE

Toxic Part: Seeds most toxic
Damaged Organ: Liver
Clinical Signs: weakened pulse and respiration; nervousness, convulsions
Found: Moist to arid soil along roadways and in fields

POISON HEMLOCK

Toxic Part: Leave, Stems, Seeds most toxic
Damaged Organ: Multipl*e*
Clinical Signs: weakened pulse and respiration; nervousness, trembling, pupil dilation, paralysis, bloating
Found: Along Roadsides, field edges, neglected areas

VETCH (LOCOWEED)

Toxic Part: All above ground parts toxic
Damaged Organ: Liver and Kidney
Clinical Signs: weakness; slobbering; nasal discharge; cough; stiffness; anorexia; swelling of the head and neck; rough coat; convulsions
Found: Wild in fields and thickets

HORSETAIL

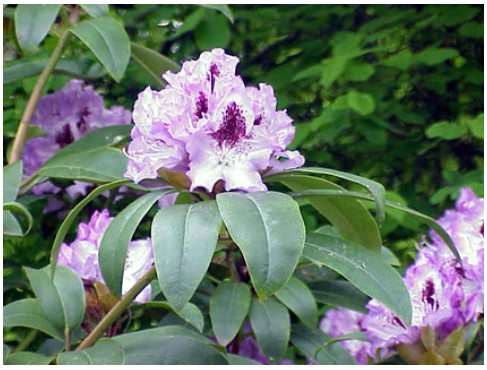
Toxic Part: All parts of the plant toxic
Damaged Organ: Gut, muscles (causes thiamin deficiency)
Clinical Signs: weakness; staggering; trembling; diarrhea; coma; death
Found: Sandy soil and roadside ditches

OLEANDER

Toxic Part: All parts, even smoke from burning Oleander toxic
Damaged Organ: Heart
Clinical Signs: Irregular pulse; cardiac arrest; coma; death; paralysis
Found: Gardens and freeway plantings

RHODODENDRON

Toxic Part: Leaves and stems toxic
Damaged Organ: Liver, Kidney, Heart
Clinical Signs: Salivation; colic; coma; death
Found: Moist wooded areas and gardens



STINGING NETTLES

Toxic Part: Leaves most toxic
Damaged Organ: Mouth
Clinical Signs: Mouth sores and ulcers
Found: Neglected areas

FOXGLOVE

Toxic Part: All parts toxic
Damaged Organ: Heart
Clinical Signs: Irregular pulse; colic; bloody stools; convulsions prior to death
Found: Gardens and wild in farmlands

STAR THISTLE

Toxic Part: All parts
Damaged Organ: Brain tissue
Clinical Signs: Unable to chew or swallow; frequent yawning; protruding tongue
Found: Arid fields

DEADLY NIGHTSHADE

Toxic Part: Leaves and berries toxic
Damaged Organ: Nervous and Digestive system
Clinical Signs: weakness; lack of coordination; depression; salivation; trembling; colic
Found: Dry waste places, all over

Sources for information on poisonous plants:

Cornell University
http://www.ansci.cornell.edu/plants/horselist.html

Ohio State University
http://ohioline.osu.edu/b762/b762_24.html

Livestock-Poisoning Plants of California Leaflet 21268
Division of Agricultural Sciences University of California (Available through UC Davis)

United States Department of Agriculture – plants toxic to livestock in the Western United States
http://www.ars.usda.gov/Services/docs.htm?docid=12140

Horse Owner's Field Guide to Toxic Plants
Burger, S; Breakthrough Publications Inc