

## The MERCK VETERINARY MANUAL

TABLE 03: Poisonous Houseplants and Ornamentals




Scientific Name (Family)	Common Name	Important Characteristics	Comments and Toxic Principles and Effects	Treatment
<i>Agave americana</i> (Agavaceae)	Century plant, American aloe	Clumps of thick, long strap-shaped blue/green leaves with hook (margin) and pointed spines (tip). Central flower stalk with small tubular flowers in clusters.	Sap contains calcium oxalate crystals; saponins and acrid volatile oil in leaves and seeds. On ingestion, causes dermal and oral mucosal irritation and edema.	Symptomatic
<i>Aglaonema modestum</i> (Araceae)	Chinese evergreen, Painted drop tongue	Central stem with solid medium green or splotched gray/green leaves; small greenish flowers.	The entire plant contains calcium oxalate crystals. On ingestion, causes oral mucosal irritation and edema.	Symptomatic
<i>Aloe Barbadosis (vera)</i> (Liliaceae)	Barbados aloe, Curacao aloe	Succulent herb with cluster of narrow fleshy, spinous or coarsely serrated margin leaves, with hook spines on leaf margin. Dense spiked tubular yellow flowers at end of single stalk.	Contains anthraquinone glycosides (barbaloin, emodin) and chrysophanic acid in the latex of the leaves; higher concentrations in younger leaves. On ingestion, causes abrupt, severe diarrhea and/or hypoglycemia, with vomiting in some cases.	Symptomatic—control diarrhea and fluid loss.
<i>Brunfelsia pauciflora var floribunda</i> (Solanaceae)	Yesterday-today-and-tomorrow, Lady-of-the-night	Evergreen shrubs to small trees with alternate, undivided, toothless, thick, rather leathery, lustrous leaves. Winter-blooming; large showy sometimes	Alkaloid components (atropine, scopolamine, hyoscyamine) found in the flowers, leaves, bark, and roots. On ingestion, animals show tachycardia, dry mouth, dilated pupils, ataxia, tremors, depression, urinary retention, and sometimes coma	In severely depressed animals, stimulants (respiratory and cardiac), along with supportive therapy recommended.

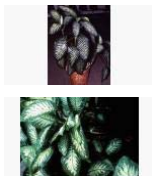
		<p>fragrant flowers, clustered or solitary at the branch ends, with 5-lobed tubular calyx, 5 petals, and funnel-shaped corolla. Fruits berry-like capsules.</p>	<p>(deep sedation). Not reported to cause death.</p>	
<p><i>Caladium</i> spp (Araceae)</p> 	<p>Caladium, Fancy leaf caladium, Angel wings</p>	<p>Perennial herbs with simple, heart-shaped, thin, highlighted veins, variegated leaves; yellow-green spathe; grown from rhizomes.</p>	<p>Calcium oxalate crystals and unknowns found in all parts, especially rhizomes. Ingestion causes immediate intense pain, local irritation to mucous membranes, excess salivation, swollen tongue and pharynx, diarrhea, and dyspnea. Pets' access to plant associated with rhizomes brought indoors for winter storage.</p>	<p>Symptomatic</p>
<p><i>Cannabis sativa</i> (Cannabaceae)</p> 	<p>Mary Jane, Marijuana, Grass, Pot, Hashish, Indian hemp, Reefer, Weed</p>	<p>Annual herb, grown from seeds, ≥6 ft tall; Leaves opposite or alternate, palmately compound with 5-7 linear, coarsely dentate leaflets; small green flowers at tip (male) or along entire length (female) of branch; fruits achenes. Grown for its fiber; legally cultivated under federal license only.</p>	<p>Leaves, stems, and flower buds of mature plants contain tetrahydrocannabinol (THC) and related compounds. THC concentrations vary with plant variety (1-6%), parts (female flowers have highest concentrations), processing (extracts have as much as 28%), sex, and growing conditions. Lethal dose for dogs &gt;3.0 g/kg body wt. Pets' exposure usually from accidental access to this plant being used for in-home treatment of cancer patient or for illegal recreational uses by owner. Pets (dogs primarily) show ataxia, vomiting, mydriasis,</p>	<p>Remove animal from source. Effectiveness of emetics limited by antiemetic effect of THC. Oral tannic acid, activated charcoal followed by saline cathartics have been recommended. Stimulants (cardiac and respiratory) along with supportive therapy essential in severely depressed animals. Recovery slow at best. <i>See also <a href="#">Marijuana (Cannabis)</a>.</i></p>

			prolonged depression, tachycardia or bradycardia, salivation, hyperexcitability, tremors, and hypothermia. Death results when vital CNS regulatory centers are severely depressed.	
<i>Capsicum annuum</i> (Solanaceae)	Cherry pepper, Chili pepper, Ornamental pepper, Capsicum	Annual shrub; branched, erect stem; dark, glossy, ovate, entire margin leaves; white flowers. Fruits—shiny berries of various colors, shapes, sizes.	Capsaicinoids (capsaicin) in the mature fruits, solanine and scopoletin in foliage; irritating to the GI tract, with vomiting and diarrhea. Not likely to be lethal.	Symptomatic; irritation relief—cool water irrigation, topical or oral mineral or vegetable oil. Rarely topical anesthetics.
<i>Chlorophytum</i> spp (Liliaceae)	Spider plant, St. Bernard's lily, Airplane plant	Rhizomatous herbs with leaves slightly glossy, succulent, narrow, strap-like, green—some with a broad, yellow or white band down the middle; long, cream, hanging stems with small, white flowers developing into plantlets. Often grown in hanging baskets.	More commonly grown today for its filtering ability. Pet animals (especially cats) reach these plants either by climbing or when plantlets fall from mature stems. Unknown toxin(s) found in leaves and plantlets. Vomiting, salivation, retching, and transient anorexia seen in cats within hours of ingestion. Deaths and diarrhea not reported.	Symptomatic
<i>Colchicum autumnale</i> (Liliaceae, Colchicaceae)	Autumn crocus, Crocus, Fall crocus, Meadow saffron, Wonder bulb	Popular house or yard plant, perennial herb, ovoid underground corm covered with brown membrane or scales. Leaves large, lanceolate, basal, ovate, smooth,	Colchicine and related alkaloids found throughout plant. These alkaloids are heat stable and not affected by drying. Colchicine is used experimentally in genetic investigations, and medically in the treatment of gout in humans. It is cumulative and slowly	Prolonged course due to slow excretion of colchicine. Gastric lavage; supportive care for dehydration and electrolyte losses (fluid therapy); CNS, circulatory, and respiratory disturbances. Analgesics and



		ribbed, appear in spring and die back before flowering. Flowers tubular, solitary, pale purple or white appearing in fall; fruit a 3-celled ovoid capsule with numerous seeds.	excreted. Milk of lactating animals is a major excretory pathway. Observed clinical signs are thirst, difficult swallowing, abdominal pain, profuse vomiting and diarrhea, weakness, and shock within hours of ingestion. Death from respiratory failure.	atropine recommended for abdominal pain and diarrhea.
<p><i>Convallaria majalis</i> (Liliaceae)</p> 	Lily-of-the-valley, Convallid, Mayflower	Herbaceous perennial from slender running rhizome; stem leafless, bearing a 1-sided raceme of nodding white, aromatic, bell-shaped flowers; leaves 2 or 3, basal to 1 ft long. Fruit a red berry but seldom formed.	Cardiac glycosides (convallarin, convallamarin, convallatoxin), irritant saponins found in leaves, flowers, rhizome, and water in which flowers have been kept. Variable latent period depending on dose. GI signs (vomiting, trembling, abdominal pain, diarrhea), progressive cardiac irregularities (irregular heart beats, A-V block), and death. Hyperkalemia in acute cases. Gastroenteritis, petechial hemorrhages throughout.	Aimed at gut decontamination (gastric lavage) and at correcting bradycardia (atropine), conduction defects (phenytoin), and electrolyte imbalance such as hyperkalemia (IV electrolytes). Electrocardiographic and serum potassium monitoring necessary.
<p><i>Cyclamen</i> spp (Primulaceae)</p> 	Cyclamen, Snowbread, Shooting star	Herbaceous plants, grown from rhizomes or tubers. Petioled, heart-shaped, deep green intermixed with lighter green coloration (same leaf), serrated leaves; stems upright, with a terminal pink or white butterfly-like flower.	Triterpinoid saponins found in tuberous rhizomes cause GI irritation, thereby increasing systemic absorption and severe toxicity. Anorexia, diarrhea, convulsions, and paralysis are observed clinical signs. Pets have greater access to these plants over winter months (both pets and plants are indoors).	Symptomatic

*Dieffenbachia* spp Dumbcane  
(Araceae)



Fairly tall, erect, unbranched, fleshy plant; stem girdled with leaf scars; leaves large, thickly veined, sheath-like petioles, white or yellow spots on blade.

Calcium oxalate crystals and unknown toxic proteins (possibly asparagine or protoanemonin) in all parts, including sap. On ingestion, immediate intense pain, burning, and inflammation of mouth and throat, anorexia, vomiting, and possibly diarrhea, with tongue extended, head shaking, excessive salivation, and dyspnea. Immediate pain limits amount consumed. Death infrequent.

Symptomatic

*Digitalis purpurea* Foxglove  
(Scrophulariaceae)

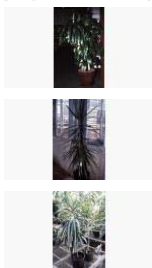


Erect biennial with simple, petioled (long on lower, short or sessile on upper), alternate, toothed, hairy, ovate to lanceolate leaves. Purple, pink, red, white, or yellow tubular flowers (with spots) in terminal racemes; fruit is a capsule with many seeds.

Cardiac glycosides (digitoxin, digitalin, digoxin, and others), saponins, and alkaloids found throughout plant. Potency not affected by drying. Generally, acute abdominal pain, vomiting, bloody diarrhea, frequent urination, irregular slow pulse, tremors, convulsions, and rarely death.

Symptomatic

*Dracaena* spp Dragon tree  
(Agavaceae)



Robust palm-like house plant with lance-shaped, thin, variegated, alternate, nonpetioled leaves. Yellow, red, or green stripes along leaf margins in some species. Lower leaves

Alkaloids, saponins, and resin found in leaves. Vomiting and severe diarrhea indicative of GI irritation expected. Clinical cases have not been reported.

Symptomatic, to correct fluid and electrolyte imbalance.

		are lost, leaf scars remain and clearly demarcated, terminal leaves retained as plant matures.		
<i>Euphorbia pulcherrima</i> (Euphorbiaceae)	Poinsettia, Christmas flower, Christmas star	Perennial shrub with milky, white sap throughout. Leaves alternate, petioled, distinctly veined, entire or lobed, and conspicuously bright red, pink, or white (terminal leaves), lower leaves remain green. Flowers small and inconspicuous.	Milky sap contains unknown toxic principle(s); irritates mucous membranes and causes excessive salivation and vomiting but not death. Toxicity (hybrid species) not supported experimentally. Toxic diterpenes (ingenol derivatives) found in other <i>Euphorbia</i> spp have not been found in this species.	Symptomatic; gastric lavage, activated charcoal, and saline cathartics should be considered.
				
<i>Hyacinthus</i> spp (Liliaceae)	Hyacinths	Garden ornamentals that grow from bulbs (close resemblance to onion bulbs) and flower in early spring. Bulbs harvested and stored in fall for replanting in spring.	Calcium oxalate crystals and alkaloids (their toxic potential yet to be defined) found in bulbs. After ingestion of toxic dose (bulbs), vomiting, diarrhea, and rare deaths reported. Bulbs in storage may be accessible to pets.	Symptomatic
				
<i>Ilex aquifolium</i> (Aquifoliaceae)	English holly, European holly	Evergreen shrub with leaves leathery, glossy upper surface, spiny toothed, alternate, and petioled; fruits red to yellow berries with many seeds and aromatic taste.	Saponins; an alkaloid (theobromine), triterpene compounds, and unknown compounds with digitalis-like cardiotoxic activity have been found in leaves, fruits, and seeds. Abdominal pain, vomiting, and diarrhea seen after ingestion of $\geq 2$ berries. Death rare.	Symptomatic (at best)
				
<i>Kalanchoe</i> spp	Kalanchoe,	Winter	Cardiac glycosides	Symptomatic;

(Crassulaceae)

Air-plant,  
Cathedra-  
bells

flowering,  
herbaceous,  
succulent,  
nonhardy  
annuals or  
perennials.  
Fleshy, serrate  
or crenate,  
opposite,  
petioled  
leaves. Bright  
red, orange, or  
pink flowers in  
umbel. Stems  
become woody  
and untidy  
with age.

found in leaves. Within  
hours of ingesting  
toxic dose, depression,  
rapid breathing, teeth  
grinding, ataxia,  
paralysis, opisthotonos  
(rabbit), and death  
(rat).

atropine has been  
effective in rabbits.

*Lilium*  
*longiflorum* ; *L*  
*tigrinum*  
(Liliaceae)

Easter lily,  
Trumpet lily

Plants grown  
from bulbs;  
leaves  
alternate or  
whorled,  
sessile, linear  
or lanceolate  
blades; large  
showy funnel-  
form flowers;  
Fruits capsules  
with  
numerous, flat  
seeds.

Unknown toxin found  
throughout plants.  
Renal failure in cats 2-  
4 days post-ingestion.  
Not reported toxic to  
other species.  
Vomiting, depression,  
loss of appetite within  
12 hr post-ingestion.  
Elevated creatinine,  
BUN, phosphorus, and  
potassium indicate  
toxicity.

Emetics, activated  
charcoal, saline  
cathartic, and  
nursing care—as for  
renal failure—within  
hours of ingestion.  
Delayed treatment  
is associated with  
poor prognosis.

*Narcissus* spp  
(Amaryllidaceae)



Daffodils

Same as for  
*Hyacinthus* ,  
above

*Persea americana*  
(Lauraceae)

Avocado pear,  
Alligator pear

Trees or  
shrubs with  
long branches  
arising from  
terminal buds,  
widely  
cultivated for  
its fruits. Three  
commonly  
cultivated  
races  
(Mexican,  
Guatemalan,  
and West  
Indies). Leaves  
ovate-elliptical,  
entire,  
alternate,  
veined, dark-

All above-ground parts  
(leaves in particular)  
reported toxic to  
cattle, horses, goats,  
rabbits, canaries,  
ostriches, and fish.  
Responsible toxin a  
monoglyceride. Oil  
found in fruits used for  
cosmetic purposes.  
Toxicity associated  
with noninfectious  
agalactia (cattle,  
rabbits, goats),  
pulmonary congestion,  
cardiac arrhythmia,  
submandibular edema,  
acute death (rabbits,  
cage birds, goats),

Primarily  
symptomatic and  
supportive. *See also*  
[Avocado](#).

green above and paler below, papery to the feel. Flowers inconspicuous, yellow-green in axillary or terminal panicles; fruit berry, ovoid to pyriform in shape with thick, leathery, glossy dark green skin over lime-green to yellow flesh and a smooth, ovoid, solitary seed.

respiratory distress, generalized congestion, subcutaneous edema, and hydropericardium (suggestive of cardiac failure [caged birds]). In caged birds, clinical signs may be seen within 24 hr (usually after ≥12 hr), with death 1-2 days after exposure.

*Philodendron* spp Philodendron (Araceae)

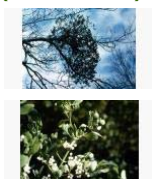


Climbing vines with aerial roots; leaves (major attraction as a houseplant) are large, unlobed or pinnately lobed and heart-shaped; rarely flowering.

Calcium oxalate crystals and unidentified proteins throughout entire plant. On ingestion, immediate pain, local irritation to mucous membranes, excessive salivation, edematous tongue and pharynx, dyspnea, and renal failure. Excitability, nervous spasms, convulsions, and occasional encephalitis reported in cats.

Symptomatic

*Phoradendron flavescens* (Viscaceae)



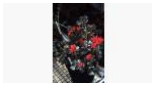
Mistletoe

Perennial parasitic shrub that grows on deciduous trees. Evergreen, ovoid, opposite leaves on round, highly branched, green stem. White berries with single seed. Brought into homes during Christmas season.

Amines ( $\beta$ -phenylethylamine, acetylcholine, choline, and tyramine), toxic proteins (viscotoxins), and unknowns in all parts. Vomiting, profuse diarrhea, dilated pupils, rapid labored breathing, shock, and death from cardiovascular collapse within hours of ingesting toxic dose.

Symptomatic

*Rhododendron*  
spp (Ericaceae)



Azalea,  
Rhododendron

Evergreen or deciduous shrub with simple, alternate, entire leaves; funnel-shaped flowers in terminal umbel-like clusters or solitary and of various colors; fruits are capsules with many seeds.

Andromedotoxins (grayanotoxins) found in all parts, including pollen and nectar. Within hours of ingestion of toxic dose (1 g/kg), salivation, lacrimation, vomiting, diarrhea, dyspnea, muscle weakness, convulsions, coma, and death. Signs may last several days, but toxin is not cumulative.

Symptomatic; gastric lavage, activated charcoal, saline cathartics, calcium injection, and antibiotics to control possible pneumonia suggested.

*Sansevieria* spp  
(Agavaceae)



Sansevieria,  
Snake plant,  
Mother-in-law's tongue

Hardy, succulent houseplant. Leaves erect, elongate, lanceolate, and flat or cylindrical, dark green with or without a yellow stripe along the margins, and horizontal gray bands throughout; many yellow star-like flowers on tall central raceme or spike.

Hemolytic saponin and organic acids found in leaves and flowers. Vomiting, salivation, diarrhea, and hemolysis related to GI activity of these compounds.

Symptomatic; fluids and electrolytes may be necessary.

*Schefflera* spp  
(Araliaceae)



Schefflera,  
Umbrella tree

Fast-growing evergreen with glossy, palmately compound leaves that hang and spread, appearing like an umbrella. Depending on the species, leaflets increase with plant maturity and become more compact; veins

Oxalate found in the leaves. Mucous membrane irritation, salivation, anorexia, vomiting, and if severe enough, diarrhea.

Symptomatic

<p><i>Solanum pseudocapsicum</i> (Solanaceae)</p>	<p>Jerusalem cherry</p>	<p>pronounced; margins entire to slightly crenate.</p>	<p>Shrub with simple, lanceolate, entire or slightly serrated leaves. Small star-shaped white flowers. Ripe fruits are red, shiny berries with many white seeds.</p>	<p>Solanocapsine and related alkaloids found in leaves and fruits. Anorexia, abdominal pain, vomiting, hemorrhagic diarrhea, salivation, progressive weakness or paralysis, dyspnea, bradycardia, circulatory collapse, dilated pupils, and convulsions reported.</p>	<p>Symptomatic; gastric lavage, activated charcoal, electrolytes and fluids, and anticonvulsants suggested.</p>
					
<p><i>Taxus</i> spp (Taxaceae)</p>	<p>Yew</p>	<p>Evergreen tree or small erect shrub with alternate, needle-like, glossy (upper surface), dull (lower surface) leaves. Seeds (generally 1 per fruit), black-brown or green, nearly enclosed in a cup-shaped, fleshy, red covering (aril).</p>	<p>Evergreen tree or small erect shrub with alternate, needle-like, glossy (upper surface), dull (lower surface) leaves. Seeds (generally 1 per fruit), black-brown or green, nearly enclosed in a cup-shaped, fleshy, red covering (aril).</p>	<p>The alkaloids (taxines and ephedrine), cyanide, and volatile oils found throughout plant except the fleshy aril. Nervousness, trembling, ataxia, dyspnea, collapse; bradycardia progressing to cardiac standstill and death without struggle. Empty right side of heart; dark, tarry blood in left side of heart; limited nonspecific postmortem lesions.</p>	<p>Symptomatic at best; usually futile once clinical signs appear. Atropine may be helpful.</p>
					
<p><i>Zamia pumila</i> (Zamiaceae)</p>	<p>Coontie, Florida arrowroot, Seminole bread, Cycad</p>	<p>Palm-like plant with thick underground fleshy, tuberous stem from which grow few pinnately compound, palm-like leaves ~2 ft long; cones containing inch-long, shiny, orange-red seeds.</p>	<p>Palm-like plant with thick underground fleshy, tuberous stem from which grow few pinnately compound, palm-like leaves ~2 ft long; cones containing inch-long, shiny, orange-red seeds.</p>	<p>The glucoside cycasin and its aglycone methylazoxymethanol (a colon-specific carcinogen in mice) found in leaves, seeds, and stem. Ingestion associated with hepatic and GI disturbances and ataxia. Clinical signs are persistent vomiting, diarrhea, abdominal pain, depression, and muscular paralysis. A neurologic condition characterized by hindleg paralysis</p>	<p>No specific therapy; IV fluids and symptomatic care recommended.</p>
					

(hyperextension followed by incomplete extension) has been reported in cattle.

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