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A LIST OF THE POISONOUS AND INJURIOUS VASCULAR PLANTS OF THE UNITED STATES

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Vascular plants, or higher plants as they are sometimes called, comprise the lycophytes (fern allies), ferns, gymnosperms, and flowering plants. Poisonous or toxic plants are those that when ingested in sufficient quantity, touched or otherwise contacted can harm or kill another organism. Harmful effects range from mild skin rashes to death within a matter of a few minutes after consuming almost microscopic amounts of plant material. Of course you know that plants can be harmful to us and other animals (wild and domesticated), but you may be surprised to learn that they can also harm other plants. While the majority of the plants on this list produce one or more toxins, a few absorb them from the soil or host plants in the case of parasites, and others are the host of toxic fungi that are the culprits. I have also included plants that are mechanically injurious. Some of them are harmful because of penetration by thorns, spines, bristles, or hairs of various sorts. The site may later become infected. Others produce harmful effects because plant material gets lodged in the throat and impairs breathing or it accumulates in the stomach to form phytobezoars, some of them quite large and heavy.

The geographic coverage is the conterminous United States, often referred to as "the lower 48 states." This compilation includes plants that are native to the United States, weedy introductions, ornamentals of home and garden, forage crops, food plants, and those with medicinal and recreational uses. I have included several plants that are found here and that have well documented histories of toxicity in other countries.

Plants are presented first by major group, next alphabetically by plant family, and then by scientific name within each family. The format for each plant entry is scientific name · common name · most toxic part(s) of the plant · toxic principle(s), and · symptoms of toxicity. There are several instances where there is more than one syndrome of toxicity. See the end of the list for an explanation of the abbreviations.

You may be surprised to see how many food plants and those we use for medicinal purposes appear in this compilation. Trial and error have played their parts through the millennia. In the case of plants used in formal and alternative medicine, we have learned how to take advantage of their effects to treat illness. For example, administration of a plant-based drug that is known to slow down heart contractions may be exactly what is needed.

This summary consists of four parts. The first is the main list in which the plants are arranged alphabetically by the technical names of their families. The second is an alphabetical listing of common names. The third is an explanation of abbreviations used in the main list and some additional commentary. The fourth is a listing of the primary sources that I used. The poisonous plants literature is vast and ranges from detailed reports of laboratory studies and autopsies, through anecdotal reports and circumstantial evidence, to "has been reported" accounts. Inconsistencies and contradictions abound. You will find a much more extensive bibliography at my Digital Commons website (digitalcommons@humboldt.edu/botnay_jps)

Allow me to end on a personal note. I have a very clear recollection of the event that first sparked my interest in poisonous plants. I was a graduate student at Iowa State University, studying under the eminent agrostologist, Richard W. Pohl. He called me to his office one afternoon. He wanted to show me something interesting, which I assumed would be an unusual grass specimen. I arrived to find him using tongs to pull chunks of something out of a shallow pan. It was a gawdawful mess, and the smell was even worse. Dr. Pohl explained that I was looking at the contents of a dead sheep's stomach that had been sent over by a colleague in the College of Veterinary Medicine. He wanted to know what the animal eaten that might have killed it. For the next half hour or so we attempted to identify the plants and we did discover a couple of culprits. Pohl was amazingly good at this. A day or so later he announced that I would be teaching the lab in his course in poisonous plants. And now, fifty-five years later, I still find myself fascinated by the subject. Along the way I developed my own class on poisonous plants at Humboldt State, and on a few occasions I found myself offering advice in hospital emergency rooms and the county coroner's office.

[LYCOPHYTES]

Lycopodiaceae (Club-Moss Family)

Huperzia selago • fir club-moss *

• All parts • Hyperzine A (sesquiterpene alkaloid) • GI, dizziness, cramps, slurred speech

Lycopodium clavatum • common club-moss *

• All parts (except spores?) • Lycopodine, clavatine • Paralysis of motor nerves, asthma, respiratory

[FERNS]

Cystopteridaceae (Brittle Fern Family)

Cystopteris fragilis • brittle or fragile fern • Fronds • Prunasin (Cyanogenic glycoside) • Cellular asphyxiation

Dennstaedtiaceae (Bracken Fern Family)

Pteridium aquilinum • bracken fern • All parts, esp. rhizomes • Ptaquiloside, cyanogenic glycosides

• Circulatory, tremors, stomach and bladder cancer, destruction of vitamin B1, CNS disturbances

Dryopteridaceae (Wood Fern Family)

Dryopteris filix-mas • male fern • Foliage • Thiaminase • GI

Matteuccia struthiopteris • ostrich fern • Unknown • GI

Onoclea sensibilis • sensitive fern • Foliage • Unknown • CNS, lesions in brain

Equisetaceae (Horsetail Family)

Equisetum spp. • horsetails • Stems • Thiaminase • Circulatory failure

Pteridaceae (Brake Fern Family)

Astrolepis cochisensis • jimmy fern • Foliage • Unknown • Nervous disorder ("jimmies")

[GYMNOSPERMS]

Cupressaceae (Cypress Family)

Cupressus macrocarpa • Monterey cypress • Foliage • Isocupressic acid • Abortions in cattle

Cycadaceae (Cycad Family)

Cycas circinalis • false sago palm • Most parts • Cycasin (glycoside) • GI, circulatory, CNS

Cycas revoluta • sago palm • All parts • Glycosides and amino acid • GI and circulatory

Ephedraceae (Mormon Tea or Joint-fir Family)

Ephedra viridis • green ephedra • All parts • Ephedrine • Cardiovascular

Ginkgoaceae (Maidenhair Family)

Ginkgo biloba • maidenhair tree • Seeds • Phenolic acids • Dermatitis, GI, convulsions

Pinaceae (Pine Family)

Cedrus deodara • deodar cedar • Cones, sap • Isocupressic acid • Dermatitis

Pinus ponderosa • ponderosa pine • Leaves, twigs • Terpene (?) • Abortions in cattle, teratogenic

Podocarpaceae (Podocarp Family)

Podocarpus macrophylla • yew-pine, southern-yew • Leaves, drupe-like female cones • Unknown • GI (dogs)

Taxaceae (Yew Family)

Taxus spp. • English and Japanese yew • All parts • Taxine (alkaloid) • GI, circulatory, respiratory, CV

Zamiaceae (Sago-palm Family)

Zamia pumila • coontie • Seeds • Cycasin (glycoside) • Ataxia ("wobbles"), cancer

[FLOWERING PLANTS]

Aceraceae (Maple Family)

Acer rubrum • red maple • Leaves, twigs • Unknown • Circulatory

Alstroemeriaceae (Lily-of-the-Incas Family)

Alstroemeria spp. • lily-of-the-Incas, parrot lily • Tuliposide A • Dermatitis

Amaranthaceae (Pigweed Family)

Amaranthus spp. • pigweeds • All parts • Nitrates, oxalates (?) • GI

Bassia spp. • bassia, smother weed • All parts • Unknown • Weakness, incoordination, GI

Beta vulgaris • beet, sugar beet • Leaves • Nitrates • GI, abortions, vitamin deficiency

Chenopodium spp. • goosefoot • All parts • Nitrates, oxalates • GI

Halogeton glomeratus • halogeton • All parts • Oxalates • GI and circulatory, death

Kochia scoparia • summer-cypress • All parts • Nitrates, oxalates, sulfates

• Prostration, photosensitization, blindness, liver and kidney damage, polioencephalomalacia

Salsola iberica • Russian thistle • All parts • Oxalates • GI and circulatory

Sarcobatus vermiculatus • greasewood • All parts • Oxalates • GI and circulatory, dermatitis, SDS

Spinacea oleracea • spinach • All parts • Oxalates • GI and circulatory

Suckleya suckleyana • poison suckleya • All parts • cyanogenic glycosides • Cellular asphyxiation

Amaryllidaceae (Amaryllis Family)

Allium spp. • wild onions, onion, garlic, etc. • All parts • Sulfides/disulfides • Hemolytic anemia

Amaryllis belladonna • naked ladies • Bulbs • Lycorine (alkaloid) • GI

Clivia spp. • Kaffir-lily • All parts • Lycorine (alkaloid) • GI

Crinum americanum • swamp-lily • Bulbs • Lycorine (alkaloid) • GI, respiratory paralysis

Galanthus nivalis • snowdrop • Bulbs • Lycorine (alkaloid) • GI, small pupils

Hippeastrum spp. • amaryllis • Bulbs • Lycorine (alkaloid) • GI

Hymenocallis spp. • spider-lily • Bulbs • Lycorine (alkaloid) • GI

Lycoris radiata • red spider-lily • Bulbs • Lycorine (alkaloid) • GI, convulsions, death

Narcissus spp. • narcissus, daffodil • All parts • Phenanthridine alkaloids • GI and CNS

Zephyranthes atamasco • Atamasco-lily • Bulb • Lycorine (alkaloid) • GI

Zephyranthes drummondii • rain lily, prairie lily • Leaves • Unknown • Photosensitization

Anacardiaceae (Cashew Family)

Anacardium occidentale • cashew nut • Fruits • Anacardic acid • Dermatitis

Cotinus anagyroides • smoke bush • All parts • Urushiol (catechols) • Dermatitis

Mangifera indica • mango • Fruits • Urushiol (catechols) • Dermatitis

Metopium toxiferum • poison wood • All parts • Urushiol (catechols) • Dermatitis

Schinus spp. • pepper tree • Fruits • Triterpenes • Dermatitis, M & T, GI

Toxicodendron spp. • poison-ivy, poison-oak, poison-sumac • All parts • Urushiol (catechols) • Dermatitis

Annonaceae (Annona Family)

Asimina triloba • paw paw • Fruits • Acetogenins • Dermatitis, subcellular damage

Apocynaceae (Dogbane Family)

Acokanthera spp. • Bushman's poison

• All parts, esp. seeds • Ouabain • GI and CV, arrow poisons, medicinal uses

Adenium obesum • impala-lily, desert-rose • All parts • Cardiac glycosides • CV failure

Allamanda cathartica • golden trumpet • All parts • Glycosides • CV failure, GI

Angadenia berterii • pine land-allamanda • Latex • Unknown • Dermatitis, GI

Apocynum spp. • dogbane, Indian-hemp • All parts • Apocynamarin + glycosides • CV failure, GI, SDS

Asclepias spp. • milkweeds • All parts • Resinoids • CNS and GI

Calotropis spp. • crown flower • Latex • Calcium oxalate, cardiac glycosides • Dermatitis

Cascabela trhevetia • yellow-oleander • All parts • Thevetin + glycosides • CV failure, GI

Catharanthus roseus • periwinkle • All parts • Glycosides • CV failure, GI

Cryptostegia spp. • rubber vine • All parts • Digitalis-like glycoside • GI and CV

Nerium oleander • oleander • All parts • Oleandrin + glycosides • CV failure, GI, SDS

Pentalinon lutea • yellow nightshade • Leaves • Urechitoxin (glycoside) • GI and CV

Plumeria spp. • frangipani • Sap, bark • Iridoids (monoterpenes) • Dermatitis, GI (diarrhea)

Strophanthus speciosus • corkscrew flower • All parts • Cardiac glycosides • CV and GI

Vinca spp. • periwinkle • All parts • Glycosides • CV failure, GI

Aquifoliaceae (Holly Family)

Ilex spp. • holly • Fruits • Saponins, alkaloids, anthocyanines
• GI, abdominal spasms, arrhythmias, paralysis, kidney damage, allergic reactions

Araceae (Aroid or Philodendron Family)

Alocasia spp. • elephant ear • All parts • Calcium oxalate, proteolytic enzyme • M & T
Anthurium spp. • anthurium • Stems, leaves • Calcium oxalate, proteolytic enzyme • M & T
Arisaema triphylla • jack-in-the-pulpit • All parts • Calcium oxalate, proteolytic enzyme • M & T
Arum spp. • lords-and-ladies • All parts • Calcium oxalate, proteolytic enzyme • M & T
Caladium spp. • caladium • All parts • Calcium oxalate, proteolytic enzyme • M & T
Calla palustris • water-arum • All parts, esp. roots • Calcium oxalate, proteolytic enzyme • M & T
Colocasia spp. • elephant ear, taro • All parts • Calcium oxalate, proteolytic enzyme • M & T
Dieffenbachia spp. • dumbcane • Stems • Calcium oxalate, proteolytic enzyme • M & T
Epipremnum aureum • pothos • All parts • Calcium oxalate, proteolytic enzyme • M & T
Lysichiton americanum • skunk-cabbage • All parts • Calcium oxalate, proteolytic enzyme • M & T
Monstera deliciosa • ceriman • All parts • Calcium oxalate, proteolytic enzyme • M & T
Orontium aquaticum • golden club • All parts • Calcium oxalate, proteolytic enzyme • M & T
Philodendron spp. • philodendron • Leaves • Calcium oxalate, proteolytic enzyme • M & T
Pistia stratiotes • water-lettuce • All parts • Calcium oxalate, proteolytic enzyme • M & T
Schindapsus spp. • ivy-arum • All parts • Calcium oxalate, proteolytic enzyme • M & T
Spathiphyllum spp. • spathe flower • All parts • Calcium oxalate, proteolytic enzyme • M & T
Sygonium spp. • sygonium • All parts • Calcium oxalate, proteolytic enzyme • M & T
Symplocarpus foetidus • skunk-cabbage • All parts • Calcium oxalate, proteolytic enzyme • M & T
Xanthosoma spp. • melanga • All parts • Calcium oxalate, proteolytic enzyme • M & T
Zantedeschia aethiopica • calla-lily • All parts • Calcium oxalate, proteolytic enzyme • M & T

Araliaceae (Spikenard Family)

Aralia spp. • devil's club, Hercules' club • All parts • Saponins, mechanical injury (penetration) • GI
Hedera helix • English ivy, Algerian ivy • All parts • Alpha-hederin (saponin)
• GI, dermatitis, hyperthermia, palpitations, respiratory arrest, death
Oplopanax horridum • devil's club • Stems, leaves • Unknown • Mechanical only (?) (penetration)
Polyscias spp. • Ming-aralia • Leaves • Saponin and ? • Dermatitis

Aristolochiaceae (Birthwort Family)

Aristolochia clematitis • birthwort • Aerial parts • Aristolochic acid and other alkaloids
• GI, CV, hypotension, respiratory arrest

Asparagaceae (Hyacinth Family)

Agave spp. • agave, century plant • Sap • Volatile oil, oxalates, saponin • Dermatitis, GI
Asparagus officinalis • asparagus • Stems, fruits • Glycosides and saponin • Dermatitis, GI, and CV
Convallaria majalis • lily-of-the-valley • All parts • Convallatoxin, etc. (glycosides) • GI and CV
Drimys maritima • red-squill • Bulb • Cardiac glycosides • GI and CV
Hyacinthoides non-scripta • English bluebell • All parts • Glycosides (?) • GI and CV
Hyacinthus orientalis • hyacinth • All parts • Lycorine (alkaloid) • GI
Nolina microcarpa • sacahuista • All parts • Unknown
• Mechanical injury (obstruction), liver damage (sheep, goats, cattle)
Ornithogalum umbellatum • star-of-Bethlehem • All parts • Digitalis-like glycosides • GI
Scilla spp. • squill • All parts, esp. bulbs • Alkaloid and glycoside • GI and CV

Asphodelaceae (Day-Lily Family)

Aloë spp. • aloe • Sap • Athracene glycosides • GI (severe diarrhea)
Hemerocallis spp. • day lily • Flowers • Unknown • Kidney damage (cats)

Berberidaceae (Barberry Family)

Berberis spp. • barberry • All parts • Isoquinoline alks • GI, muscular/uterine contractions
Caulophyllum thalictroides • blue cohosh • Leaves, seeds • Methylcytisine (alkaloid) and saponin • GI
Mahonia spp. • Oregon grape • All parts • Alkaloids • GI, muscular/uterine contractions
Nandina domestica • heavenly-bamboo • All, esp. fruits • Cyanogenic glycosides • GI, SDS
Podophyllum peltatum • May-apple • All parts • Lignans • GI, mitotic poison (herbal remedy)

Bignoniaceae (Catalpa Family)

Campsis radicans • trumpet creeper • Leaves, flowers • Unknown • Dermatitis

Boraginaceae (Borage Family)

Amsinckia intermedia • fiddleneck • Seeds • Pyrrolizidine alkaloids • CNS, GI, liver failure
Anchusa officinalis • common bugloss • All parts • Pyrrolizidine alkaloids • Liver and lung damage
Cynoglossum officinale • hound's-tongue • All parts • Cynoglossine, etc • (alkaloids) • GI, respiratory
Echium spp. • viper's bugloss • All parts • Pyrrolizidine alkaloids • Liver failure, GI
Symphytum spp. • comfrey • All parts • Pyrrolizidine alkaloids • Liver failure, GI

Bromeliaceae (Bromeliad Family)

Ananas comosus • pineapple • All parts, esp. sap • Bromelain (proteolytic enzyme) • Dermatitis

Buxaceae (Boxwood Family)

Buxus sempervirens • boxwood • All parts, esp. foliage • Buxine (alkaloid)
• Dermatitis, GI, CNS, respiratory arrest

Cactaceae (Cactus Family)

Cereus grandiflorus • night-blooming cereus • All parts • Unknown (digitalis-like) • CV
Lophophora williamsii • peyote • Aerial portion • Mescaline, etc • (alkaloids)
• CNS and GI (spiritual and recreational use)

Calycanthaceae (Spice Bush Family)

Calycanthus spp. • spice bush • Seeds • Calycanthin (alkaloid) • Convulsions, CV

Campanulaceae (Harebell Family)

Lobelia spp. • lobelia, Indian-tobacco • All parts • Lobeline (alkaloid) • CNS and GI, herbal remedy

Cannabaceae (Hemp Family)

Cannabis sativa • marijuana, pot, hemp • Leaves, bracts • Tetrahydrocannabinols (resins)
• CNS, respiratory depression, impaired cognitive performance
Humulus lupulus • hops • Bracts • Lupulin • Occupational dermatitis in hops pickers, hyperthermia (dogs)

Caprifoliaceae (Honeysuckle Family)

Lonicera spp. • honeysuckle • All parts (sap) • Saponins, Cyanogenic glycosides • GI, CV, respiratory failure
Symphoricarpos spp. • snowberry • Fruits • Saponins • GI

Caryophyllaceae (Pink Family)

Agrostemma githago • corn cockle • Seeds • Saponins • GI
Drymaria spp. • ink weeds • All parts • Alkaloids • CNS and GI
Saponaria officinalis • bouncing bet • All parts • Saponins • GI
Vaccaria hispanica • cow cockle • All parts, esp. seeds • Saponins • GI

Celastraceae (Bittersweet Family)

Celastrus scandens • bittersweet • Seeds • Alkaloids, cardenolides • GI
Euonymus spp. • burning bush, wahoo • Fruits, bark • Evomonoside (glycoside) • GI, CNS, and CV

Clusiaceae (Clusia Family)

Clusia rosea • balsam-apple • Fruits, sap • Unknown • Pronounced diarrhea

Colchicaceae (Autumn-Crocus Family)

Colchicum autumnale • autumn-crocus • All parts • Colchicine • GI, mitotic poison
Gloriosa superba • glory-lily • All parts • Superbine (alkaloid) • GI, convulsions

Commelinaceae (Spiderwort Family)

Tradescantia pallida • purple queen • Sap • Unknown • Dermatitis, eye irritation
Tradescantia spathacea • oyster plant • Sap • Unknown • M & T, GI, respiratory

Compositae [Asteraceae] (Sunflower Family)

Achillea millefolium • yarrow • All parts • Alkaloids, glycosides • GI, hypersalivation (pets, horses)
Acroptilon repens • Russian knapweed • All parts • Lactones • "Chewing sickness," mechanical injury (horses)
Ageratina altissima • white snakeroot • All parts • Tremetol (alcohol)
• loss of appetite, weakness, pain, GI, reddened tongue/mucous membranes, coma, death ("Milk sickness")
Ageratum conyzoides • white weed • All parts • Pyrrolizidine alkaloids • Kidney damage (medicinal tea)
Ambrosia discolor • white ragweed • All parts • Nitrate • GI, vitamin deficiency
Arnica spp. • arnica • Flowers/roots • Helenalin • GI, CV, coma
Artemisia spp. • sage, sagebrush, wormwood • All parts • Volatile oils, thujone • CNS, "sage sickness"

Baccharis halimifolia • groundsel tree • Leaves, flowers • Cardiac glycosides • GI, CV
Baileya spp. • desert-marigold • All parts • Sesquiterpene lactones • CNS and GI
Centaurea solstitialis • yellow star thistle • All parts • Lactones • "Chewing sickness," mechanical injury (horses)
Erechtites spp. • fire weeds • All parts • Diester retronecines • liver damage
Eupatorium adenophorum • Crofton weed • Leaves • Pyrrolizidine alkaloids
 • Degeneration of liver bile ducts, lesions in the lungs (horses)
Flourensia cernua • tar bush • Leaves, fruits • Unknown • GI, respiratory
Grindelia spp. • gum weeds • All parts • Selenium • Respiratory and cardiac
Gutierrezia spp. • broom weeds • All parts • Saponins • GI, abortion in cattle
Helenium spp. • sneeze weeds • All parts • Sesquiterpene lactones • CNS, "spewing sickness"
Heliomeris spp. • annual golden-eye • All parts • Unknown • Respiratory, weakness, collapse ("stringhalt disease")
Hymenoxys spp. • rubber weeds • All parts • Hymenovin • GI
Hypochaeris radicata • hairy cat's-ear • All parts • Unknown • "Stringhalt," peripheral nerve degeneration
Isocoma spp. • jimmy weed • All parts • Tremetol • Milk sickness, as in *Ageratina altissima*
Iva angustifolia • narrow-leaved sump weed • All parts • Lactones? • Late gestation, abortion, stillbirths
Lactuca scariola • wild lettuce • All parts • Unknown • GI, lung, kidney, and liver damage
Osteospermum ecklonis • African daisy • All parts • Cyanogenic glycoside & saponin • Paralysis, respiratory
Oxytenia acerosa • copper weed • All parts • Unknown • GI, liver and kidney damage
Psathyrotes annua • desert velvet • All parts • Lactones? • Liver damage
Psilostrophe spp. • paper flowers • All parts • Psilotropin (lactone) • GI and CNS
Sartwellia flaveriae • thread-leaved glowwort • All parts • Lactones (?) • General decline in health (goats)
Senecio spp. • groundsel, tansy ragwort, stinking Willy • All parts • Pyrrolizidine alkaloids • Liver damage
Silybum marianum • milk thistle • All parts • Nitrate • GI, vitamin deficiency
Solidago spp. • goldenrods • All parts • Unknown • Salivation, lip, jaw movements, body spasms
Tanacetum vulgare • tansy • All parts • Thujone, etc (oils) • CNS, abortions
Tetradymia spp. • horse brush • All parts • Tetradymol • CNS, photosensitization ("Big Head"), liver
Xanthium spp. • cocklebur • All parts, esp. seeds • Sesquiterpene alkaloids • GI, mechanical, dermatitis, SDS

Convolvulaceae (Morning Glory Family)

Ipomoea batatas • sweet potato • Tubers • Ipomeamarone • Liver, only in spoiled tubers
Ipomoea tricolor • morning glory • Seeds • Ergot alkaloids • CNS

Coriariaceae (Coriaria Family)

Coriaria myrtifolia • shanshi • Fruits • Coriamyrtin (lactone) • CNS

Crassulaceae (Stonecrop Family)

Cotyledon orbiculata • pig's-ears • All parts • cotyledotoxin (a bufanolide) • Paralysis, respiratory, bloating
Crassula arborescens • silver jade plant • All parts • oxalic acid (?) • GI, incoordination
Kalanchoë spp. • kalanchoe • All parts • Bufadienolides • CV, respiratory, paralysis, convulsions

Cruciferae [Brassicaceae] (Mustard Family)

Armoracia lappathifolia • horseradish • Roots • Glucosinolates • Severe GI
Barbarea vulgaris • yellow rocket • All parts • Glucosinolates • GI
Berteroa incana • hoary-alyssum • All parts • Unknown • Edema of limbs, GI, hematologic changes (horses)
Brassica spp. • mustards, field mustard, cabbage, kale, rutabaga, turnip, brussel sprouts, broccoli, rape, etc.
 • All parts • Unknown (bacterial?) • ARDS
 • All parts • Glucosinolates • GI, liver/kidney damage, hemolytic anemia
 • All parts • Glucosinolates • CNS ("rape blindness")
 • All parts • Bloat, hemorrhaging of head and neck tissues
 • All parts • Neurotoxicosis • Change in feeds •
 • All parts • Glucosinolates • Urinary ("redwater disease")
Descurainia pinnata • tansy mustard, flix weed • All parts • Unknown • Blindness, goiters ("paralyzed tongue")
Erysimum spp. • wallflowers • Seeds, flowers • Glucosinolates, cardenolides • GI
Raphanus spp. • garden and wild radish • Seeds • Unknown • GI irritation
Sinapis spp. • white mustard • All parts, esp. seeds • Glucosinolates • GI
Stanleya spp. • prince's-plume • All parts • Selenium accumulation • Malformed embryos (chicks, lambs)
Thlaspi arvense • fan eed • Seeds • Glucosinolates • GI

Cucurbitaceae (Gourd Family)

Bryonia spp. • bryony • Fruits, roots • Cucurbitacins • GI, respiratory paralysis
Cucurbita spp. • gourds, squashes • Fruits • Cucurbitacins • GI, prostration
Marah oreganus • coastal manroot • All parts, esp. seeds • Cucurbitacins • CV, internal bleeding
Momordica charantia • balsam-pear • Fruits • Saponins, phytotoxins • GI, hypoglycemia

Datiaceae (Datisca Family)

Datisca glomerata • Durango root • All parts • Unknown • CNS, GI, death

Dioscoreaceae (Yam Family)

Dioscorea bulbifera • air-potato • Tubers • Alkaloid and glycoside • GI
Dioscorea spp. • yams • Tubers • Alkaloids • CNS paralysis, teratogenic

Ebenaceae (Persimmon Family)

Diospyros spp. • persimmon • Fruits • None • Mechanical injury (plant tissues congeal to obstruct GI tract)

Ericaceae (Heath Family)

Andromeda polifolia • bog-rosemary • All parts • Grayanotoxins • GI, CNS, and CV
Kalmia spp. • mountain-laurel, lamb kill • All parts, esp. honey • Grayanotoxins • GI, CNS, and CV
Leucothoe spp. • Sierra-laurel • All parts • Grayanotoxins • GI, CNS, and CV
Lyonia spp. • fetterbush, male berry • Leaves, honey • Grayanotoxins • GI, CNS, and CV
Menziesia ferruginea • rusty leaf • Leaves • Grayanotoxins • GI, CNS, and CV
Pieris spp. • pieris, andromeda • All parts • Grayanotoxins • GI, CNS, and CV
Rhododendron columbianum • Labrador tea • Leaves • Grayanotoxins • GI, CNS, and CV
Rhododendron spp. • rhododendron, azalea • All parts, esp. honey • Grayanotoxins • GI, CNS, and CV
[The syndrome associated with grayanotoxin poisoning is often called "mad honey disease.]

Euphorbiaceae (Spurge Family)

Acalypha virginica • three-seeded-mercury • All parts • Diterpene esters • GI
Aleurites moluccanus • candlenut • seeds (raw) • Saponin and phorbol • Laxative, abuse of herbal remedies
Cnidioscolus spp. • bull nettles • All parts • serotonin-like, cyanogens (minor) • Dermatitis from irritating hairs
Croton setigerus • turkey mullein • All parts • None • Mechanically injurious (obstruction)
Croton spp. • croton • All parts • Phorbol esters • GI
Euphorbia spp. • spurges, poinsettia, crown-of-thorns, snow-on-the-mountain
• All parts • Diterpene esters • Dermatitis, GI
Hippomane manchinella • manchineel tree • All parts • Hippomane A & B (diterpenes) • Dermatitis and GI
Hura crepitans • sandbox tree • Seeds, latex • Hurin (phytotoxin) and esters • Dermatitis, GI
Jatropha spp. • physic nut • Seeds • Jatrophin (phytotoxin) • GI
Manihot esculenta • cassava, yuca • Root • glycoside • Cellular asphyxiation
Mercurialis annua • mercury • All parts • Saponins • GI
Pedilanthus tithymaloides • slipper flower • Latex • Euphorbol and terpenes • Gastritis
Phyllanthus abnormis • leaf flower • All parts • Unknown • GI, CNS, prostration
Reverchonia arenaria • sand reverchonia • All parts • Unknown • Liver and kidney damage
Ricinus communis • castor bean
• Seeds • Ricinine • Dermatitis, edematous swelling
• Seeds • Ricin • GI, agglutination of red blood cells
Stillingia spp. • queen's delight, tooth-leaf • All parts • Cyanogenic glycosides • GI, cellular asphyxiation
Synadenium grantii • African milk bush • All parts • Diterpene esters • Dermatitis, GI
Tragia spp. • noseburn • All parts (stinging hairs) • Unknown, serotonin-like • Dermatitis
Triadica sebifera • Chinese tallow tree • Foliage, fruits • Severe diarrhea, GI irritation
Vernicia fordii • tung nut tree • All parts, esp. seeds • Saponins • Dermatitis, GI

Fagaceae (Oak Family)

Fagus spp. • beeches • Fruits • Tannic acid • GI
Quercus spp. • oaks • Fruits • Tannins and gallotannins • M & T, GI

Garryaceae (Silk-Tassel Family)

Aucuba japonica • Japanese aucuba • All parts, esp. fruits • Aucubin (glycoside) • GI

Gelsemiaceae (Jessamine Family)

Gelsemium spp. • yellow jessamine, evening trumpet-flower
• All parts, incl. honey • Indole alkaloids • Respiratory, CNS

Gentianaceae (Gentian Family)

Centaurium floribundum • centaurium • All parts • Unknown • GI, frequent urinations, liver and kidney damage

Geraniaceae (Geranium Family)

Erodium spp. • filaree • All parts • Cyanogenic glycosides • Cellular asphyxiation

Gramineae [Poaceae] (Grass Family)

Anthoxanthum odoratum • sweet vernal grass • All parts • Coumarin • Hemorrhaging
Aristida spp. • three-awn grass • Awns • None • Mechanically injurious (penetration)
Avena sativa • oats • All parts • Nitrites ("Grass tetany")
Bambusa spp. • bamboo • Young shoots • Cyanogenic glycosides • Cellular asphyxiation
Bromus spp. • ripgut grass • Awns • None • Mechanically injurious (penetration)
Cenchrus spp. • fountain grasses, millets • All parts • Nitrates • Weakness, labored breathing, death
Cynodon dactylon • Bermuda grass • All parts • Unknown • CNS, photosensitization, dermatitis
Festuca arundinacea • alta fescue • All parts (fungal endophyte) • Alkaloids, nitrates ("Fescue foot")
Festuca temulenta • darnel • All parts • Temuline (from a fungal endophyte) • CNS, GI
Glyceria spp. • manna grass • All parts • Cyanogenic glycosides • Cellular asphyxiation
Heteropogon contortus • tanglehead • Callus • None • Mechanically injurious (penetration)
Hierochloë odorata • vanilla grass, holy grass • All parts • Coumarin • Hemorrhaging
Hilaria spp. • galleta, tobosa grass • All parts (fungal endophyte) • Ergot alkaloids, "Staggers"
Holcus lanatus • velvet grass • All parts • cyanogenic glycosides • Cellular asphyxiation
Hordeum jubatum • foxtail barley • Awns • None • Mechanically injurious (penetration)
Panicum spp. • panic grasses • All parts • Saponins (?) • GI, liver and bladder damage
Paspalum dilatatum • Dallis grass • Grains (infected by *Claviceps* fungus) • Ataxia, collapse ("Paspalum staggers")
Phalaris spp. • canary grass • All parts • Ergot alkaloids from endophytic fungus (*Claviceps*)
• Tremors, incoordination, acute or chronic staggers, hallucinations ("Staggers")
Phragmites australis • common reed • Roots • Tryptamine derivatives • Hallucinations
Secale cereale • rye • Grain • Ergot alkaloids from endophytic fungus (*Claviceps*)
• Convulsions, hallucinations, miscarriages, gangrenous loss of extremities
Setaria spp. • foxtail • Awns • None • Mechanically injurious (penetration)
Sorghastrum nutans • Indian grass • All parts • Cyanogenic glycosides • Cellular asphyxiation
Sorghum spp. • sorghum, milo, Columbus grass, Johnson grass
• All parts • Cyanogenic glycosides • Cellular asphyxiation, anoxia
• All parts • Nitrates (accumulated) • Neurological disease, ataxia, paralysis, urinary incontinence
Stipa spp. • needle grass, rice grass, needle-and-thread grass, porcupine grass
• All parts • Unknown • Drowsiness and stupor (*S. robusta*)
• Awns • None • Mechanically injurious (penetration)
Triticum aestivum • wheat • All parts • Cyanogenic glycosides, nitrates • Grass tetany, photosensitization
Urochloa spp. • signal grass • Colic, photosensitization, kidney disease, rumen disturbance
Zea mays • corn, maize • Stem, leaves • Nitrates • Circulatory

Guttiferae [Hypericaceae] (St. John's Wort Family)

Caulophyllum inophyllum • mast wood • Seeds • Inophyllum, calophylloides, etc • GI
Hypericum spp. • St. John's wort • All parts, esp. leaves/flowers • Hypericin
• Photosensitization, capillary damage, sloughing of skin, GI, CV (medicinal and pharmaceutical uses)

Heliotropaceae (Heliotrope Family)

Heliotropium spp. • heliotrope • All parts • Pyrrolizidine alkaloids • Liver failure, GI

Hippocastanaceae (Buckeye Family)

Aesculus spp. • horse-chestnut, buckeye • All parts • Aesculin (saponin) • CNS (ataxia, paralysis), GI, blindness

Hydrangeaceae (Hydrangea Family)

Hydrangea spp. • hydrangea • All parts, esp. buds, leaves • Cyanogenic glycosides • GI, cellular poison

Hydrophyllaceae (Waterleaf Family)

Phacelia spp. • phacelia • Leaves, stems • Geranylhydroquinone • Dermatitis from stinging hairs
Turricula parryi • poodle-dog bush • Leaves, stems • Unknown • Intense dermatitis from stinging hairs
Wigandia caracasana • Caracas wigandia • Leaves, stems
• Histamines, acetylcholine, 5-hydroxytryptamine • Dermatitis from stinging hairs

Iridaceae (Iris Family)

Gladiolus spp. • gladiolus • All parts, esp. bulbs • Unknown • GI, CV, anemia, ataxia
Homeria spp. • Cape-lily • All parts • Epoxyscillirosidine (a cardiac glycoside) • GI and CV
Iris spp. • iris • All parts, esp. bulbs • Irisin (resin) • GI
Moraea polystachya • Cape blue-tulip • All parts • Alkaloids • GI, prostration

Juglandaceae (Walnut Family)

Juglans spp. • walnuts • Wood shavings • Juglone (a naphthaquinone)
• Inflammation of limbs and hooves (horses), a powerful allelopath

Juncaginaceae (Arrow-Grass Family)

Triglochin spp. • arrow-grass • All parts • Cyanogenic glycosides • Cellular asphyxiation, SDS (cattle)

Labiatae [Lamiaceae] (Mint Family)

Galeopsis tetrahit • hemp-, bee-, or dog-nettle • Seeds • Unknown • GI, sweating, tremors, anorexia, jaundice

Glechoma hederacea • creeping charlie • All parts • Volatile oils (?) • CNS

Hedeoma pulegioides • American pennyroyal • All parts • Pulegone (essential oil) • Hepatic necrosis

Mentha pulegium • pennyroyal • All parts • Pulegone (oil) • Respiratory, liver damage

Perilla frutescens • perilla mint • All parts • Ketones • Respiratory

Salvia officinalis • sage • Leaves • Unknown • GI (only in excess)

Salvia reflexa • lance-leaved sage • All parts • Nitrates (?) • GI, muscular weakness

Stachys arvensis • field-nettle, stagger weed • All parts • Unknown • CNS, incoordination

Thymus vulgaris • thyme • All parts • Thyme oil • Dermatitis, GI, CNS, CV

Lauraceae (Laurel Family)

Persea americana • avocado • All parts • Persin • cessation of milk flow, allergic responses, CV

Sassafras albidum • sassafras • Root • Safrole • Carcinogenic, overuse as a flavoring

Umbellularia californica • California bay • Leaves • Umbellulone (irritating oil) • Dermatitis, headaches, eye irritation

Leguminosae [Fabaceae] (Pea or Bean Family)

Abrus precatorius • jequirity bean • Seeds • Abrin • GI, ulcerations, hemorrhaging, death

Acacia berlandieri • guajillo • Leaves, fruits • Phenylethylamine • CNS, ataxia ("limber leg")

Acacia greggii • cat's-claw • Stems, leaves • Cyanogenic glycoside • GI, cellular asphyxiation

Albizia julibrissin • mimosa tree • Fruits • Pyroxidine alkaloids • Tremors, excessive salivation, seizures

Astragalus spp. • locoweed, milkvetch

- All parts • Alkaloids • CNS, respiratory failure

- All parts • Selenium accumulation • Dermatitis, GI, anemia

- Tops, esp. leaves • Miserotoxin • Emphysema, ataxia

- All parts • Miserotoxins • Circulatory, CNS, paralysis

Baptisia spp. • wild indigo • All parts • Cytisine, etc • GI, death by asphyxia

Caesalpinia spp. • bird-of-paradise • Fruits • Alkaloids • GI

Canavalia ensiformis • jack bean, horse bean • Seeds • Proteins, amino acids, glycosides • Diarrhea, GI

Cassia fistula • golden shower • All parts • Emodin (glycoside) • GI

Chamaecrista spp. • partridge pea • Fruits • Anthraquinones • Diarrhea, GI irritation

Crotalaria spp. • rattlebox • All parts • Alkaloids • CNS and GI

Cytisus spp. • brooms • All parts • Cytisine and sparteine • CNS, respiratory failure

Dermatophyllum secundiflorum • mescal bean • Seeds • Quinolizidine alkaloids • CNS, GI, CV, seizures

Erythrina spp. • coral tree • Seeds, bark • Curare-like alkaloids • CNS, respiratory paralysis

Galega officinalis • goat's rue • All parts • Guanadine derivatives • Pulmonary edema, respiratory distress

Glottidium vesicarium • bladderpod • Immature seeds • Saponins • GI, respiratory, CV

Glycine max • soy bean • Seeds • Lectins • Circulatory (agglutination), goitrogenic

Gymnocladus dioica • Kentucky coffee bean • Seeds • Cytisine • CNS and GI

Indigofera hendecaphylla • creeping indigo • All parts • Unknown • Kidney/liver damage, reproductive effects

Lablab purpureus • hyacinth bean • Seeds • Cyanogenic glycoside • GI, cellular poison

Laburnum anagyroides • golden chain tree • Flowers, seeds • Cytisine • CNS and respiratory failure

Lathyrus sativus • sweet peas • Seeds • Amino acids (BODAP, DABA, OxDABA) • CNS

- Irreversible paralysis of the hind or lower limbs, pain, burning/prickling sensation, muscle spasms, stiffness, loss of muscle control, cramps, ataxia, paralysis, death (lathyrism or neurolathyrism) (humans, esp. young males, horses, livestock)

Lathyrus spp. • everlasting pea, sweet pea • Seeds • Amino acids • Acute, sometimes fatal, neurological effects that vary with the species

Leucaena leucocephala • white lead tree • All parts • Mimosine (amino acid) • Hair loss, stunted growth

Lonchocarpus violaceus • violet lancepod • All parts • Rotenone • GI, circulatory, respiratory failure

Lotus corniculatus • bird's-foot trefoil • All parts • Cyanogenic glycosides • Ataxia, labored respiration, seizures

Lupinus spp. • lupines, blue bonnets

- Seeds, etc. • Alkaloids • CNS, skeletal malformations ("crooked calf disease")

Medicago spp. • alfalfa • All parts • Saponins/estrogen • Photosensitization, infertility

Melilotus spp. • sweet clovers • All parts • Dicoumarin • Severe hemorrhaging ("The bleeds")

Milletia pinnata • pongam tree • Seeds, roots • Saponin • GI

Mucuna pruriens • velvet bean

- Seeds • Prurienin • Reduces smooth muscle contractions, allergy to hairs on pods

Oxytropis spp. • locoweeds • All parts • Alkaloids • CNS and respiratory failure

Pachyrhizus erosus • yam bean • Seeds • Saponin, rotenone, pachyrrhizin • GI, catharsis, leucoencephalopathy

Pediomelum argophyllum • silver-leaved Indian breadroot • Seeds • Unknown • Photosensitization, GI

Phaseolus spp. • lima bean, kidney bean
 • Seeds • Cyanogenic glycosides • Cellular asphyxiation
 • Seeds • Lectins/enzyme inhibitors • GI, blocks starch digestion
Pisum sativum • garden pea • All parts, esp. fruits, leaves • Unknown (mycotoxin ?) • CNS (rare), ataxia
Prosopis glandulosa • mesquite • All parts • Unknown (tyramines ?)
 • Weight and hair loss, awkward tongue, jaw, and chewing action, excessive salivation
Robinia pseudoacacia • black locust • Leaves, seeds • Phytotoxin + glycoside • GI, agglutination
Samanea saman • rain tree, saman • Seeds • Saponin • GI
Senna spp. • senna, sicklepod • All parts, esp. seeds • Anthraquinones • GI, muscle degeneration
Sesbania spp. • coffee weed, sesbane • Seeds • Sesbanine (alkaloid) + saponins • GI, respiratory
Spartium junceum • Spanish broom • Leaves, flowers, seeds • Quinolizidine alkaloids • GI, circulatory
Tephrosia spp. • goat's rue, hoary pea • Roots • Rotenone • Liver disease ("water belly") (fish poison)
Thermopsis macrophylla • golden banner • Leaves, flowers, seeds • Quinolizidine alkaloids, GI, CNS
Trifolium incarnatum • crimson clover • All parts • None • Mechanically injurious (obstruction)
Trifolium spp. • clovers • All parts • Isoflavones, coumarins, cyanogenic glycosides
 • GI, excessive salivation ("slobbers"),
 • Hypothermia, lacrimation, increased frequency of urination, decreased milk production, photosensitivity
Vicia spp. • fava bean, horse bean, vetch
 • Neuropathy syndrome • Seeds • Cyanoalanine, cyanogenic glycosides • Symptoms similar to rabies, including seizures, sudden death (livestock, birds)
 • Dermatopathy syndrome • Foliage • Unknown • Dermatitis, gray streaks in tissues (horses and cattle)
 • Favism • Seeds • hemolytic anemia, discolored urine, jaundice, back-abdominal pain (humans with glucose-6-phosphate dehydrogenase deficiency)
Wisteria spp. • wisteria • Seeds • Lycorine and wistarine (glycosides) + lectins
 • GI, headache, dizziness, confusion, excessive sweating

Liliaceae (Lily Family)

Tulipa spp. • tulips • All parts • Alkaloids • GI

Linaceae (Flax Family)

Linum usitatissimum • flax • All parts • cyanogenic glycosides, linatine • Cellular asphyxiation

Loganiaceae (Logania Family)

Spigelia spp. • pink root • All parts • Spigeline • GI, convulsions

Lythraceae (Loosestrife Family)

Heimia salicifolia • shrubby yellow crest • All parts • Quinolizidine alkaloids • CNS

Punica granatum • pomegranate

• Bark • Piperidine alkaloids, oxalate, tannins • GI, CV, CNS, respiratory distress, death (excessive dose)

Magnoliaceae (Magnolia Family)

Magnolia grandiflora • bull bay, magnolia • Wood, leaves • Lactone (?) • Dermatitis

Malvaceae (Mallow Family)

Abutilon theophrasti • velvet leaf • Foliage, seeds • Unknown, nitrate accumulation • Depression, jaundice

Gossypium spp. • cotton • Seeds • Gossypol (pigment), GI, cardiac failure, male sterility

Malva parviflora • cheese weed • All parts • Unknown + nitrates • CNS,

Modiola caroliniana • Carolina bristle mallow • All parts • Unknown • Ataxia, collapse, seizures

Meliaceae (Chinaberry Family)

Melia azedarach • China berry tree • All parts, esp. fruits • Triterpenoid neurotoxin • CNS, GI, death

Swietenia mahagoni • mahogany • Seeds • Unknown • GI and CV

Melanthiaceae (Wake Robin Family)

Amianthium muscaetoxicum • stagger-grass • Leaves • Alkaloid (?) • GI, respiratory

Melanthium virginicum • bunch flower • Stems, leaves • Unknown • CNS, CV, and respiratory

Veratrum spp. • false hellebore • All parts • Alkaloids • CNS, GI, CV, teratogenic effects, SDS

Zigadenus spp. • death-camas • All parts • Zygadenine, etc. • GI, vasomotor collapse, M & T, SDS

Meliantaceae (Melianthus Family)

Melianthus spp. • honey bush, honey flower • All parts • Bufadienolides (glycosides) • CV

Menispermaceae (Moonseed Family)

Cocculus indicus • Indian cockle • Fruits • Picrotoxin • GI, convulsions, coma

Menispermum canadense • moonseed • Fruits • Dauricine • GI

Moraceae (Mulberry Family)

Ficus spp. • fig • Sap • Ficin + methoxyypsoresalen • Dermatitis, photodermatitis

Maclura pomifera • Osage-orange, bois d'arc • Fruits • None • Mechanically injurious (obstruction)

Morus spp. • mulberry • Sap • Unknown • Dermatitis, GI, CNS

Musaceae (Banana Family)

Strelitzia spp. • bird-of-paradise • Fruits, seeds • Unknown • GI, vertigo

Myoporaceae (Myoporum Family)

Myoporum spp. • ngaio tree, myoporum • Leaves, fruits • Ngaione • GI, convulsions, coma, death

Myristicaceae (Nutmeg Family)

Myristica fragrans • nutmeg • Seeds + covering • Myristicin • GI, CNS (recreational drug use)

Myrtaceae (Myrtle Family)

Eucalyptus spp. • eucalyptus • Leaves • Cyanogenic glycosides, monoterpenes • GI, CNS, respiratory

Melaleuca quinquenervia • cajeput tree • Stems, leaves • Irritating oil • Dermatitis, respiratory

Nitrariaceae (Nitraria Family)

Peganum harmala • African rue • Seeds • Indole alkaloids • CNS (recreational drug use)

Nyctaginaceae (Four o'clock Family)

Mirabilis jalapa • four o'clock • Seeds, roots • Trigonelline (alkaloid) • Dermatitis, GI

Oleaceae (Olive Family)

Ligustrum spp. • privet • All parts • Syringin (glycoside) • GI, kidney damage, death

Orchidaceae (Orchid Family)

Cypripedium spp. • lady slipper orchid • Stems, leaves • Unknown • Dermatitis from irritating hairs

Oxalidaceae (Oxalis Family)

Oxalis pes-caprae • Bermuda-buttercup • All parts • Oxalates • GI, circulatory

Palmae (Palm Family)

Areca catechu • betel nut palm • Seeds • Arecoline, etc. (alkaloids) • CNS and GI

Caryota spp. • fish-tail palm • Fruits • Calcium oxalate • Dermatitis, M & T

Papaveraceae (Poppy Family)

Argemone spp. • prickly poppy • Seeds • Berberine, protopine • CNS and GI

Chelidonium majus • celandine • Seeds, root • Isoquinoline alkaloids • CNS, GI, circulatory

Corydalis spp. • fumitory, fitweed • All parts • Chelidonine (alkaloid) • GI, trembling and convulsions

Dicentra spp. • dutchman's breeches • All parts • Chelidonine (alkaloid) • GI, trembling and convulsions

Eschscholzia californica • California poppy • Alkaloids • Analgesic and sedative effects

Fumaria officinalis • drug or common fumitory • Stems • Fumarine (alkaloid) • Hypotension in high doses

Papaver spp. • opium poppy, ornamental poppies • All parts • Isoquinoline alkaloids

• CNS and GI, (medicinal and recreational use)

Sanguinaria canadensis • bloodroot • All parts • Isoquinoline alkaloids • CNS and GI

Phytolaccaceae (Pokeweed Family)

Phytolacca americana • poke weed, poke berry • All parts • Resin, saponin, alkaloid, PWM (pokeweed mitogen)

• GI, mitogenic effects

Pittosporaceae (Pittosporum Family)

Pittosporum spp. • pittosporum, cheese wood • All parts • Saponins • GI

Plumbaginaceae (Leadwort Family)

Plumbago spp. • plumbago, leadwort • All parts • Plumbagin • Dermatitis

Polygonaceae (Smartweed Family)

Fagopyrum esculentum • buckwheat • Seeds • Fagopyrin • Photosensitization

Polygonum spp. • smartweed, knotweed • All parts • Unknown (nitrates ?)

• Photosensitization, liver damage, pulmonary edema, convulsions, SDS

Rheum rhabarbarum • rhubarb • Leaf blades • Anthraquinone glycosides • GI and circulatory
Rumex spp. • dock • NIH • All parts • Oxalates • GI and circulatory, SDS

Primulaceae (Primrose Family)

Anagallis arvensis • scarlet pimpernel • All parts • Saponin, glycoside, volatile oil • Dermatitis, GI
Cyclamen spp. • cyclamen • All parts • Cyclamin and other triterpene saponins
• membrane damage, dermatitis, GI, circulatory damage, respiratory distress
Primula obconica • primrose • All parts • Primin • Dermatitis, GI

Proteaceae (Protea Family)

Grevillea spp. • silk-oak • Sap • Catechols • Dermatitis

Ranunculaceae (Buttercup Family)

Aconitum spp. • monkshood, wolf's-bane • All parts • Terpene alkaloids • Cardiac and circulatory
Actaea spp. • baneberry • Roots, fruits • Protoanemonin • CNS, GI, circulatory
Adonis spp. • pheasant's-eye • All parts • Digitalis-like glycosides • CV, GI
Anemone spp. • windflower, pasque flower • All parts • Ranunculin • GI irritation
Caltha spp. • marsh-marigold • All parts • Diterpene alkaloids • M & T and GI
Clematis spp. • virgin's bower • All parts • Protoanemonin • M & T, GI, CNS
Consolida spp. • knight's spur • All parts • Terpene alkaloids • GI, arrhythmia, respiratory distress
Delphinium spp. • larkspur, stagger weed • All parts • Delphinine, ajacine, etc. GI, respiratory, SDS
Eranthis hyemalis • winter-aconite • All parts, esp. tubers • Cardiac glycosides • GI, CV, impaired vision
Helleborus niger • Christmas-rose • All parts • Protoanemonin, saponins, cardiac glycosides • Dermatitis, GI, CV
Hydrastis canadensis • golden seal • All parts • Hydrastine • CNS and GI
Ranunculus spp. • buttercups • All parts • Protoanemonin • GI

Rhamnaceae (Buckthorn Family)

Frangula purshiana • cascara • Bark • Anthraquinones • GI, kidney damage, (medicinal use as a purgative)
Karwinskia humboldtiana • coyotillo • Fruit • Anthracenones • Paralysis
Rhamnus spp. • buckthorn • Fruits • Anthraquinones • GI

Rosaceae (Rose Family)

Amelanchier spp. • serviceberry • All parts, esp. fruits • Cyanogenic glycosides • GI, cellular asphyxiation
Cercocarpus spp. • mountain-mahogany • Leaves • Cyanogenic glycosides • GI, cellular asphyxiation
Cotoneaster spp. • cotoneaster • Fruits, leaves • Cyanogenic glycosides • GI, cellular asphyxiation
Eriobotrya japonica • loquat • Seeds • HCN glycosides • GI, convulsions, coma
Heteromeles arbutifolia • Christmas berry • All parts, esp. leaves
• Cyanogenic glycosides • GI, cellular asphyxiation, SDS
Malus sylvestris • apple • Seeds • Cyanogenic glycosides • GI, cellular asphyxiation
Prunus spp. • almond, apricot, cherry-laurel, peach, plum • Seeds, leaves
• Cyanogenic glycosides • GI, cellular asphyxiation
Pyracantha spp. • firethorn • Fruits, leaves • Cyanogenic glycosides • GI, cellular asphyxiation
Pyrus communis • pear • Seeds • Cyanogenic glycosides • GI, cellular asphyxiation
Rhodotypos scandens • jet bead • Fruits • Cyanogenic glycosides (?) • Hypoglycemia, convulsions

Rubiaceae (Madder Family)

Carapichea ipecacuanha • ipecacuanha • Emetine and other alkaloids
• Respiratory distress, CV, GI, convulsions, coma, death (misuse of ipecac, an emetic)
Cephalanthus occidentalis • button bush • All parts, esp. leaves • Glycosides • Spasms, paralysis
Mitragyna speciosa • Kratom • Leaves • Mitragynine (alkaloid)
• Coma, respiratory failure, cardiac arrest (herbal-recreational uses)

Rutaceae (Citrus Family)

Citrus aurantiifolia • lime • Fruits • Limonene, etc. (terpenes) • Respiratory, photodermatitis ("Club Med dermatitis")
Dictamnus albus • burning bush • All parts • Furocoumarins • Photodermatitis
Poincirus trifoliata • trifoliolate-orange • Fruits • Saponin (?) • GI
Ptelea spp. • hop tree, wafer-ash • All parts • Furocoumarins • Photodermatitis
Ruta graveolens • rue • All parts • Furocoumarins • Photodermatitis
Skimmia japonica • skimmia • All parts, esp. fruits • Skimmianine • CV, respiratory
Thamnosma spp. • turpentine broom • All parts • Furocoumarins • Photodermatitis
Zanthoxylum spp. • prickly-ash • Leaves, bark • Unknown • CNS, blindness, inability to swallow

Santalaceae (Sandalwood Family)

Phoradendron leucarpum • oak mistletoe • All parts • Phoratoxin (lectin) • GI, CV, abortions

Viscum album • European mistletoe • Stems, leaves • Viscumin and viscotoxin (lectins)
• GI, abdominal pain, convulsions

Sapindaceae (Soapberry Family)

Blighia sapida • akee • Fruits, seeds • Hypoglycin A & B • "Vomiting sickness of Jamaica"
Sapindus spp. • soapberry • Fruits • Saponin • Dermatitis, GI

Sapotaceae (Sapodilla Family)

Manilkara zapota • sapodilla • Bark, seeds • Sapotin (glycoside) • GI

Schisandraceae (Star Anise Family)

Illicium anisatum • star anise • All parts • Unknown • GI, coma, convulsions

Scrophulariaceae (Scroph Family)

Castilleja spp. • Indian paintbrush • All parts • Selenium (accumulated)
• Pulmonary edema, GI, abdominal pain, CV, liver distress, tremors, death
Digitalis spp. • foxglove • All parts • Digitalis glycosides, saponin • GI and CV
Veronicastrum virginicum • Culver's root • Roots • Leptandrin • Violent emesis and purging

Simaroubaceae (Simarouba Family)

Ailanthus altissima • tree-of-heaven • Leaves, bark, flowers • Ailanthin, etc. Dermatitis, GI

Solanaceae (Nightshade Family)

Atropa belladonna • belladonna • All parts • Tropane alkaloids • CNS
Brugmansia spp. • angel's trumpets • All parts • Tropane alkaloids • CNS
Brunfelsia spp. • lady-of-the-night • All parts • Scopoletin, etc. • GI, CNS, tremors, seizures
Capsicum spp. • chili pepper, etc. • Fruits, esp. placenta • Capsaicin • M & T, GI
Cestrum spp. • jessamine • All parts • Tropane alkaloids & saponins • CNS
Datura spp. • datura, thorn-apple, Jimson weed • All parts • Tropane alkaloids • CNS (recreational drug use)
Hyoscyamus niger • black henbane • All parts • Tropane alkaloids • CNS
Lycium spp. • box thorn • Leaves • Tropane alkaloids (?) • Severe GI
Nicandra physalodes • Apple-of-Peru • All parts • Decreased locomotor activity, respiratory distress, collapse
Nicotiana glauca • tree tobacco • All parts • Piperine alkaloids
• Perspiration, spasms of lips and eye lids, myadriasis, internal bleedings, respiratory arrest
Nicotiana spp. • tobacco • All parts • Nicotine, pyridine alkaloids
• CNS, GI, respiratory, seizures, collapse, teratogenic
Physalis spp. • ground-cherry • All parts • Solanine (glycoalkaloid) • CNS and GI
Solandra spp. • chalice vine • All parts • Tropane alkaloids • CNS
Solanum spp. • potato, tomato, nightshades, horse-nettle, buffalo bur, Jerusalem-cherry
• All parts (esp. tubers and unripe fruits) • Solanine and related alkaloids • CNS, GI

Thymeleaceae (Mezereum Family)

Daphne spp. • daphne, spurge-laurel • All parts • Daphnetoxin (diterpene), mezerein • M & T, GI
Dirca palustris • leatherwood • All parts • Unknown • Dermatitis

Umbelliferae [Apiaceae] (Parsley Family)

Aethusa cynapium (fool's parsley) • All parts • Cicutoxin-like alcohol and coniine
• Burning sensation in mouth, CV, GI, seizures, convulsions, respiratory distress
Ammi majus • bishop's weed • All parts • Furocoumarins • Photodermatitis
Anthriscus sylvestris • cow-parsley • All parts • Furocoumarins • Photodermatitis
Apium graveolens • celery • Sap • Furocoumarins • Photodermatitis
Cicuta spp. • water hemlock • Rootstocks • Cicutoxin (alcohol) • CNS, GI, tetanic seizures, SDS
Conium maculatum • poison hemlock • All parts • Coniine • Cardiac and respiratory failure, teratogenic
Cymopterus ibapensis • spring-parsley • Sap • Furocoumarins • Photodermatitis
Daucus carota • carrot, wild carrot • All parts • Furocoumarins • Photodermatitis
Heraclium spp. • cow-parsnip, giant hog weed • All parts • Furocoumarins • Dermatitis
Oenanthe crocata • water dropwort • All parts • Oenanthotoxin (alcohol) • GI, convulsions
Pastinaca sativa • wild parsnip • All parts • Furocoumarins • Photodermatitis, dermatitis
Sium suave • water parsnip • All parts • Unknown • Cardiac and respiratory
Sphenosciadium capitellatum • ranger's buttons • All parts • Unknown • Respiratory, GI, photodermatitis

Urticaceae (Nettle Family)

Hesperocnide tenella • western nettle • Stems, leaves • Histamines (?) • Dermatitis from stinging hairs
Laportea spp. • wood nettle • All parts • Acetylcholine, 5-hydroxytryptamine • Dermatitis from stinging hairs

Urtica spp. • nettles • All parts • Histamines • Dermatitis from stinging hairs

Verbenaceae (Vervain Family)

Aloysia lycioides • white brush • Stems, leaves • Unknown • CNS, prostration, paralysis
Duranta repens • golden dewdrop • Fruits • Cyanogenic glycosides, saponins • CNS, GI, CV, convulsions
Lantana spp. • lantana • Leaves, immature fruits • Lantadene A & B (triterpenes) • GI, liver damage

Viburnaceae (Viburnum Family)

Sambucus spp. • elderberry • All parts, esp. roots/rhizomes • Cyanogenic glycosides, alkaloids • GI

Vitaceae (Grape Family)

Parthenocissus quinquefolia • Virginia creeper
• Stems, leaves, fruits • Unknown • Dermatitis similar to poison-oak/-ivy, nausea, GI, profuse sweating
Vitis vinifera • grape • Fruits (fresh or dried) • Unknown • GI, abdominal pain, renal failure (cats and dogs)

Zygophyllaceae (Caltrop Family)

Kallstroemia hirsutissima • hairy caltrop • All parts • Unknown • CNS, paralysis
Larrea tridentata • creosote bush • Stems, leaves • Nordihydroguaiaretic acid • Liver/kidney damage (medicinal tea)
Tribulus terrestris • puncture vine
• All parts • Saponins • Photosensitization, ataxia ("big head") • Fruits • Mechanical (penetration)

PART II. COMMON NAME INDEX

acacia • Acacia • Leguminosae
aconite • Aconitum • Ranunculaceae
African daisy • Osteospermum • Compositae
African milk bush • Synadenium • Euphorbiaceae
African rue • Peganum • Nitariaceae
agave • Agave • Asparagaceae
air-potato • Dioscorea • Dioscoreaceae
akee • Blighia • Sapindaceae
alfalfa • Medicago • Leguminosae
Algerian ivy • Araliaceae
almond • Prunus • Rosaceae
aloe • Aloë • Asparagaceae
amaryllis • Hippeastrum • Amaryllidaceae
andromeda • Pieris • Ericaceae
angel's trumpets • Brugmansia • Solanaceae
anthurium • Anthurium • Araceae
apple • Malus • Rosaceae
apple-of-Peru • Nicandra • Solanaceae
apricot • Prunus • Rosaceae
arnica • Arnica • Compositae
arrow-grass • Triglochin • Juncaginaceae
asparagus • Asparagus • Asparagaceae
Atamasco-lily • Zephyranthes • Amaryllidaceae
aucuba • Aucuba • Garryaceae
autumn-crocus • Colchicum • Colchicaceae
avocado • Persea • Lauraceae
azalea • Rhododendron • Ericaceae

baccharis • Baccharis • Compositae
Balsam-apple • Clusia • Clusiaceae
balsam-pear • Momordica • Cucurbitaceae
bamboo • Bambusa • Gramineae
barberry • Berberis • Berberidaceae
bassia • Bassia • Amaranthaceae
bay leaf • Umbellularia • Lauraceae
beech tree • Fagus • Fagaceae
beet • Beta • Amaranthaceae
belladonna • Atropa • Solanaceae
Bermuda grass • Cynodon • Gramineae

Bermuda-buttercup • Oxalis • Oxalidaceae
betel nut palm • Areca • Palmae
bird-of-paradise • Caesalpinia • Leguminosae
bird-of-paradise • Strelitzia • Musaceae
bird's-foot trefoil • Lotus • Leguminosae
bishop's weed • Ammi • Umbelliferae
bittersweet • Celastrus • Celastraceae
bittersweet • Solanum • Solanaceae
black locust • Robinia • Leguminosae
bladder fern • Cystopteris • Cystopteridaceae
bladder pod • Glottidium • Leguminosae
blood root • Sanguinaria • Papaveraceae
blue bonnet • Lupinus • Leguminosae
blue cohosh • Caulophyllum • Berberidaceae
bog rosemary • Andromeda • Ericaceae
bouncing bet • Saponaria • Caryophyllaceae
boxthorn • Lycium • Solanaceae
boxwood • Buxus • Buxaceae
bracken fern • Pteridium • Dennstaedtiaceae
brittle fern • Cystopteris • Cystopteridaceae
broom weed • Gutierrezia • Compositae
broom • Cytisus • Leguminosae
broom • Spartium • Leguminosae
bryony • Bryonia • Cucurbitaceae
buckeye • Aesculus • Hippocastanaceae
buckthorn • Rhamnus • Rhamnaceae
buckwheat • Fagopyrum • Polygonaceae
buffalo bur • Solanum • Solanaceae
bull bay • Magnolia • Magnoliaceae
bull nettle • Cnidocolus • Euphorbiaceae
bunch flower • Melanthium • Melanthiaceae
burning bush • Euonymus • Celastraceae
burning bush • Dictamnus • Rutaceae
bushman's poison • Akocanthera • Apocynaceae
buttercup • Ranunculus • Ranunculaceae
button bush • Cephalanthus • Rubiaceae

cajeput tree • Melaleuca • Myrtaceae
caladium • Caladium • Araceae

California bay • Umbellularia • Lauraceae
 California poppy • Eschscholzia • Papaveraceae
 caltrop • Kallstroemia • Zygophyllaceae
 canary grass • Phalaris • Gramineae
 candlenut • Aleurites • Euphorbiaceae
 Cape blue-tulip • Moraea • Iridaceae
 Cape-lily • Homeria • Iridaceae
 Carolina bristle mallow • Modiola • Malvaceae
 carrot • Daucus • Umbelliferae
 cascara • Frangula • Rhamnaceae
 cashew nut • Anacardium • Anacardiaceae
 cassava • Manihot • Euphorbiaceae
 castor bean • Ricinus • Euphorbiaceae
 cat's-claw • Acacia • Leguminosae
 cat's-ear • Hypochaeris • Compositae
 celandine • Chelidonium • Papaveraceae
 celery • Apium • Umbelliferae
 centaurly • Centaurium • Gentianaceae
 century plant • Agave • Asparagaceae
 ceriman • Monstera • Araceae
 chalice vine • Solandra • Solanaceae
 cheese weed • Malva • Malvaceae
 cheese weed • Pittosporum • Pittosporaceae
 cherry • Prunus • Rosaceae
 cherry-laurel • Prunus • Rosaceae
 chili pepper • Capsicum • Solanaceae
 China berry tree • Melia • Meliaceae
 Chinese tallow tree • Triadica • Euphorbiaceae
 choke cherry • Prunus • Rosaceae
 Christmas berry • Heteromeles • Rosaceae
 Christmas-rose • Helleborus • Ranunculaceae
 clover • Trifolium • Leguminosae
 club-moss • Huperzia • Lycopodiaceae
 club-moss • Lycopodium • Lycopodiaceae
 cnidoscolus • Cnidioscolus • Euphorbiaceae
 cocklebur • Xanthium • Compositae
 coffee weed • Sesbania • Leguminosae
 coffee • Coffea • Rubiaceae
 comfrey • Symphyum • Boraginaceae
 common reed • Phragmites • Gramineae
 coontie • Zamia • Zamiaceae
 copper weed • Iva • Compositae
 copper weed • Oxytenia • Compositae
 coral tree • Erythrina • Leguminosae
 corkscrew flower • Strophanthus • Apocynaceae
 corn cockle • Agrostemma • Caryophyllaceae
 corn • Zea • Gramineae
 corn flag • Gladiolus • Iridaceae
 corn-lily • Veratrum • Melanthiaceae
 cotoneaster • Cotoneaster • Rosaceae
 cotton • Gossypium • Malvaceae
 cow cockle • Vaccaria • Caryophyllaceae
 cow-parsley • Anthriscus • Umbelliferae
 cow-parsnip • Heracleum • Umbelliferae
 coyotilla • Karwinskia • Rhamnaceae
 creeping charlie • Glechoma • Labiatae
 crofton weed • Eupatorium • Compositae
 croton • Croton • Euphorbiaceae
 crown flower • Calotropis • Apocynaceae
 crown-of-thorns • Euphorbia • Euphorbiaceae
 Culver's root • Veronicastrum • Scrophulariaceae
 cyclamen • Cyclamen • Primulaceae
 daffodil • Narcissus • Amaryllidaceae

Dallis grass • Paspalum • Gramineae
 darnel • Festuca • Gramineae
 datura • Datura • Solanaceae
 day lily • Hemerocallis • Asphodelaceae
 death-camas • Zigadenus • Melanthiaceae
 deodar cedar • Cedrus • Pinaceae
 desert velvet • Psathyrotes • Compositae
 desert-marigold • Baileya • Compositae
 desert-rose • Adenium • Apocynaceae
 devil's club • Oplopanax • Araliaceae
 devil's club • Aralia • Araliaceae
 dock • Rumex • Polygonaceae
 dogbane • Apocynum • Apocynaceae
 dumbcane • Dieffenbachia • Araceae
 Durango root • Datisca • Datisceae
 dutchman's-breeches • Dicentra • Papaveraceae

elderberry • Sambucus • Caprifoliaceae
 elephant's-ear • Alocasia • Araceae
 elephant's-ear • Calocasia • Araceae
 elephant's-head • Pedicularis • Scrophulariaceae
 English bluebell • Hyacinthoides • Asparagaceae
 English ivy • Hedera • Araliaceae
 ephedra • Ephedra • Ephedraceae
 eucalyptus • Eucalyptus • Myrtaceae
 European mistletoe • Viscum • Santalaceae

false hellebore • Veratrum • Melanthiaceae
 fan weed • Thlaspi • Cruciferae
 fava bean • Vicia • Leguminosae
 fescue • Festuca • Gramineae
 fetter bush • Lyonia • Ericaceae
 fiddleneck • Amsinckia • Boraginaceae
 fig • Ficus • Moraceae
 filaree • Erodium • Geraniaceae
 firethorn • Pyracantha • Rosaceae
 fireweed • Erechtites • Compositae
 fish-tail palm • Caryota • Palmae
 fit weed • Corydalis • Papaveraceae
 flax • Linum • Linaceae
 fool's parsley • Aethusa • Umbelliferae
 fountain grass • Cenchrus • Gramineae
 four-o'clock • Mirabilis • Nyctaginaceae
 foxglove • Digitalis • Scrophulariaceae
 foxtail barley • Hordeum • Gramineae
 foxtail grass • Setaria • Gramineae
 frangipani • Plumeria • Apocynaceae
 fumitory • Corydalis • Papaveraceae
 fumitory • Fumaria • Papaveraceae

galleta • Hilaria • Gramineae
 garlic • Allium • Amaryllidaceae
 gladiolus • Gladiolus • Iridaceae
 glory-lily • Gloriosa • Colchicaceae
 goat's-head • Tribulus • Zygophyllaceae
 goat's rue • Galega • Leguminosae
 goat's rue • Tephrosia • Leguminosae
 golden banner • Thermopsis • Leguminosae
 golden chain tree • Laburnum • Leguminosae
 golden club • Orontium • Araceae
 golden dewdrop • Duranta • Verbenaceae
 goldeneye • Heliomeris • Compositae
 golden seal • Hydrastis • Ranunculaceae
 golden shower • Cassia • Leguminosae

golden trumpet • Allamanda • Apocynaceae
golden-eye • Viguiera • Compositae
goosefoot • Chenopodium • Amaranthaceae
gourd • Cucurbita • Cucurbitaceae
grape • Vitis • Vitaceae
grass • Cannabis • Cannabaceae
groundcherry • Physalis • Solanaceae
groundsel • Senecio • Compositae
groundsel tree • Baccharis • Compositae
guajillo • Acacia • Leguminosae
gum weed • Grindelia • Compositae

halogeton • Halogeton • Amaranthaceae
heavenly-bamboo • Nandina • Berberidaceae
heliotrope • Heliotropium • Heliotropaceae
hemp • Cannabis • Cannabaceae
hemp-nettle • Galeopsis • Labiatae
henbane • Hyoscyamus • Solanaceae
Hercules' club • Araliaceae
hoary-alyssum • Berteroa • Cruciferae
hoary pea • Tephrosia • Leguminosae
hog weed • Heracleum • Umbelliferae
holly • Ilex • Aquifoliaceae
holy grass • Hierochloë • Gramineae
honey bush • Melianthus • Melianthaceae
honeysuckle • Lonicera • Caprifoliaceae
hop tree • Ptelea • Rutaceae
hops • Humulus • Cannabaceae
horse brush • Tetradychia • Compositae
horse nettle • Solanum • Solanaceae
horse-chestnut • Aesculus • Hippocastanaceae
horseradish • Armoracia • Cruciferae
horsetail • Equisetum • Equisetaceae
hound's-tongue • Cynoglossum • Boraginaceae
hyacinth bean • Lablab • Leguminosae
hyacinth • Hyacinthus • Liliaceae
hydrangea • Hydrangea • Hydrangeaceae

impala-lily • Adenium • Apocynaceae
Indian breadroot • Pedimelum • Leguminosae
Indian cockle • Cocculus • Menispermaceae
Indian grass • Sorghastrum • Gramineae
Indian-hemp • Apocynum • Apocynaceae
Indian-tobacco • Lobelia • Campanulaceae
indigo • Baptisia • Leguminosae
indigo • Indigofera • Leguminosae
ink weeds • Drymaria • Caryophyllaceae
iris • Iris • Iridaceae
ivy-arum • Schinodapsus • Araceae

jack bean • Canavalia • Leguminosae
jack-in-the-pulpit • Arisaema • Araceae
jade plant • Crassula • Crassulaceae
jequirity bean • Abrus • Leguminosae
Jerusalem-cherry • Solanaceae
jessamine • Cestrum • Solanaceae
jessamine • Gelsemium • Gelsemiaceae
jet bead • Rhodotypos • Rosaceae
jimmy fern • Astrolepis • Pteridaceae
jimmy weed • Isocoma • Compositae
Jimson weed • Datura • Solanaceae
Johnson grass • Sorghum • Gramineae

Kaffir-lily • Clivia • Liliaceae

kalanchoe • Kalanchoë • Crassulaceae
Kentucky coffee bean • Gymnocladus • Leguminosae
kidney bean • Phaseolus • Leguminosae
Klamath weed • Hypericum • Guttiferae
knapweed, Russian • Acroptilon • Compositae
knight's spur • Consolida • Ranunculaceae
kratom • Myrtrigyna • Rubiaceae

Labrador tea • Rhododendron • Ericaceae
lady-of-the-night • Brunfelsia • Solanaceae
lady slipper orchid • Cypripedium • Orchidaceae
lamb kill • Kalmia • Ericaceae
lance pod • Lonchocarpus • Leguminosae
lantana • Lantana • Verbenaceae
larkspur • Delphinium • Ranunculaceae
leadwort • Plumbago • Plumbaginaceae
leaf flower • Phyllanthus • Euphorbiaceae
leatherwood • Dirca • Thymelaeaceae
lettuce • Lactuca • Compositae
lily-of-the-Incas • Alstroemeria • Alstroemeriaceae
lily-of-the-valley • Convallaria • Asparagaceae
lima bean • Phaseolus • Leguminosae
lime • Citrus • Rutaceae
lobelia • Lobelia • Campanulaceae
locoweed • Astragalus • Leguminosae
locoweed • Oxytropis • Leguminosae
lousewort • Pedicularis • Scrophulariaceae
loquat • Eriobotrya • Rosaceae
lords-and-ladies • Arum • Araceae
lupine • Lupinus • Leguminosae

magnolia • Magnolia • Magnoliaceae
mahogany • Swietenia • Meliaceae
maidenhair tree • Ginkgo • Ginkgoaceae
maize • Zea • Gramineae
mala mujer • Cnidoscopus • Euphorbiaceae
male berry • Lyonia • Ericaceae
male fern • Dryopteris • Dryopteridaceae
manchineel tree • Hippomane • Euphorbiaceae
mango • Mangifera • Anacardiaceae
manna grass • Glyceria • Gramineae
manroot • Marah • Cucurbitaceae
maple • Acer • Aceraceae
marijuana • Cannabis • Cannabaceae
marsh-marigold • Caltha • Ranunculaceae
mast wood • Caulophyllum • Guttiferae
May-apple • Podophyllum • Berberidaceae
melanga • Xanthosoma • Araceae
mercury • Acalypha • Euphorbiaceae
mercury • Mercurialis • Euphorbiaceae
mescal bean • Dermatophyllum • Leguminosae
mesquite • Prosopis • Leguminosae
milk thistle • Silybum • Compositae
milkweed • Asclepias • Apocynaceae
millet • Cenchrus • Gramineae
mimosa tree • Albizzia • Leguminosae
ming-arealia • Polyscias • Araliaceae
mistletoe • Phoradendron • Santalaceae
mock azalea • Menziesia • Ericaceae
monk's-hood • Aconitum • Ranunculaceae
Monterey cypress • Cupressus • Cupressaceae
Mormon tea • Ephedra • Ephedraceae
moonseed • Menispermum • Menispermaceae
mountain-laurel • Kalmia • Ericaceae

mountain-mahogany • Cercocarpus • Rosaceae
mulberry • Morus • Moraceae
mustard • Brassica • Cruciferae

naked ladies • Amaryllis • Amaryllidaceae
narcissus • Narcissus • Amaryllidaceae
needle grass • Stipa • Gramineae
nettle • Hesperocnide • Urticaceae
nettle • Urtica • Urticaceae
ngaio tree • Myoporum • Myoporaceae
night-blooming cereus • Cereus • Cactaceae
nightshade • Solanum • Solanaceae
noseburn • Tragia • Euphorbiaceae
nutmeg • Myristica • Myristicaceae
oak • Quercus • Fagaceae
oat • Avena • Gramineae
onion • Allium • Amaryllidaceae
opium poppy • Papaver • Papaveraceae
Oregon-grape • Mahonia • Berberidaceae
Osage-orange • Maclura • Moraceae
ostrich fern • Matteuccia • Dryopteridaceae
oyster plant • Rhozo • Commelinaceae

palma Christa • Ricinus • Euphorbiaceae
panic grass • Panicum • Gramineae
paper flowers • Psilostrophe • Compositae
parrot lily • Alstroemeria • Alstroemeriaceae
parsnip • Pastinaca • Umbelliferae
partridge pea • Chamaecyparis • Leguminosae
pasque flower • Anemone • Ranunculaceae
paw paw • Asimina • Annonaceae
pea • Pisum • Leguminosae
peach • Prunus • Rosaceae
pear • Pyrus • Rosaceae
pennyroyal • Mentha • Labiatae
pepper tree • Schinus • Anacardiaceae
perilla mint • Perilla • Labiatae
periwinkle • Catharanthus • Apocynaceae
periwinkle • Vinca • Apocynaceae
persimmon • Diospyros • Ebenaceae
peyote • Lophophora • Cactaceae
phacelia • Phacelia • Hydrophyllaceae
pheasant's-eye • Adonis • Ranunculaceae
philodendron • Philodendron • Araceae
physic nut • Jatropha • Euphorbiaceae
pieris • Pieris • Ericaceae
pig's-ears • Cotyledon • Crassulaceae
pigweed • Amaranthus • Amaranthaceae
pineapple • Ananas • Bromeliaceae
pineland-allamanda • Angadenia • Apocynaceae
pink root • Spigelia • Loganiaceae
pittosporum • Pittosporum • Pittosporaceae
plum • Prunus • Rosaceae
plumbago • Plumbago • Plumbaginaceae
poinsettia • Euphorbia • Euphorbiaceae
poison hemlock • Conium • Umbelliferae
poison ivy • Toxicodendron • Anacardiaceae
poison suckleya • Suckleya • Amaranthaceae
poison wood • Metopium • Anacardiaceae
poison-oak • Toxicodendron • Anacardiaceae
poisonus-sumac • Toxicodendron • Anacardiaceae
pokeweed • Phytolacca • Phytolaccaceae
pongam tree • Millettia • Leguminosae
poodle-dog bush • Turricula • Hydrophyllaceae

poppy • Papaver • Papaveraceae
pot • Cannabis • Cannabaceae
potato • Solanum • Solanaceae
pothos • Epipremum • Araceae
precatory bean • Abrus • Leguminosae
prickly poppy • Argemone • Papaveraceae
prickly-ash • Zanthoxylum • Rutaceae
primrose • Primula • Primulaceae
prince's-plume • Stanleya • Cruciferae
privet • Ligustrum • Oleaceae
puncture vine • Tribulus • Zygophyllaceae
purple queen • Tradescantia • Commelinaceae

queen's delight • Stillingia • Euphorbiaceae

radish • Raphanus • Cruciferae
ragweed • Ambrosia • Compositae
rain tree • Samanea • Leguminosae
rain-lily • Zephyranthes • Amaryllidaceae
ranger's buttons • Sphenosciadium • Umbelliferae
rape • Brassica • Cruciferae
rattlebox • Crotalaria • Leguminosae
red-squill • Drimia • Asparagaceae
reverchonia • Reverchonia • Euphorbiaceae
rhododendron • Rhododendron • Ericaceae
rhubarb • Rheum • Polygonaceae
ripgut grass • Bromus • Gramineae
rubber weed • Hymenoxys • Compositae
Russian knapweed • Acroptilon • Compositae
Russian thistle • Salsola • Amaranthaceae
rusty-leaf • Menziesia • Ericaceae

sage • Artemisia • Compositae
sage • Salvia • Labiatae
sagebrush • Artemisia • Compositae
sago palm • Cycas • Cycadaceae
salt lover • Halogeton • Amaranthaceae
saman • Samanea • Leguminosae
sandbox tree • Hura • Euphorbiaceae
sapodilla • Manilkara • Sapotaceae
sassafras • Sassafras • Lauraceae
scarlet pimpernel • Anagallis • Primulaceae
sensitive fern • Onochlea • Dryopteridaceae
service berry • Amelanchier • Rosaceae
sesbane • Sesbania • Leguminosae
shanshi • Coriaria • Coriariaceae
shrubby yellow crest • Heimia • Lythraceae
Sierra-laurel • Leucothoë • Ericaceae
signal grass • Urochloa • Gramineae
silk-oak • Grevillea • Proteaceae
skimmia • Skimmia • Rutaceae
skunk-cabbage • Lysichiton • Araceae
skunk-cabbage • Symplocarpus • Araceae
sleepy grass • Stipa • Gramineae
slipper flower • Pedilanthus • Euphorbiaceae
smoke bush • Cotinus • Anacardiaceae
smother weed • Bassia • Amaranthaceae
snakeroot • Ageratina • Compositae
sneeze weed • Helenium • Compositae
snow-on-the-mountain • Euphorbia • Euphorbiaceae
snowberry • Symphoricarpos • Caprifoliaceae
snowdrop • Galanthus • Amaryllidaceae
soapberry • Sapindus • Sapindaceae
soapwort • Saponaria • Caryophyllaceae

sorghum · Sorghum · Gramineae
 soy bean · Glycine · Leguminosae
 spathe flower · Spathiphyllum · Araceae
 spice bush · Calycanthus · Calycanthaceae
 spider-lily · Hymenocallis · Amaryllidaceae
 spider-lily · Lycoris · Amaryllidaceae
 spiderwort · Tradescantia · Commelinaceae
 spinach · Spinacia · Amaranthaceae
 spring-parsley · Cymopterus · Umbelliferae
 spurge laurel · Daphne · Thymelaeaceae
 spurge · Euphorbia · Euphorbiaceae
 squash · Cucurbita · Cucurbitaceae
 squill · Scilla · Leguminosae
 St. John's-wort · Hypericum · Guttiferae
 stagger weed · Stachys · Labiatae
 stagger weed · Ranuncinium · Ranunculaceae
 stagger-grass · Amianthium · Melanthiaceae
 star anise · Illicium · Schisandraceae
 star-of-Bethlehem · Ornithogalum · Asparagaceae
 stillness-of-death · Thevetia · Apocynaceae
 stinking Willy · Senecio · Compositae
 sugar beet · Beta · Amaranthaceae
 summer-cypressus · Kochia · Amaranthaceae
 sump weed · Iva · Compositae
 swamp-lily · Crinum · Amaryllidaceae
 sweet clover · Medicago · Leguminosae
 sweet pea · Lathyrus · Leguminosae
 sweet vernal grass · Anthoxanthum · Gramineae
 sword bean · Canavalia · Leguminosae
 sygonium · Sygonium · Araceae

tanglehead · Heteropogon · Gramineae
 tansy mustard · Descurainia · Cruciferae
 tansy ragwort · Senecio · Compositae
 tansy · Tanacetum · Compositae
 tar bush · Flourensia · Compositae
 taro · Calocasia · Araceae
 thorn-apple · Datura · Solanaceae
 thyme · Thymus · Labiatae
 tobacco · Nicotiana · Solanaceae
 tobosa · Hilaria · Gramineae
 tomato · Solanum · Solanaceae
 tooth-leaf · Stillingia · Euphorbiaceae
 toyon · Heteromeles · Rosaceae
 tree-of-heaven · Simaroubaceae
 tree tobacco · Nicotiana · Solanaceae
 trifoliolate-orange · Poincirus · Rutaceae
 trumpet creeper · Campsis · Bignoniaceae

tulip · Tulipa · Liliaceae
 tung nut or oil tree · Vernicia · Euphorbiaceae
 turkey mullein · Croton · Euphorbiaceae
 turpentine broom · Thamnosma · Rutaceae

vanilla grass · Hierochloë · Gramineae
 velvet bean · Mucuna · Leguminosae
 velvet grass · Holcus · Gramineae
 vernal grass · Anthoxanthum · Gramineae
 vernal grass · Hierochloë · Gramineae
 vetch · Vicia · Leguminosae
 violet · Viola · Violaceae
 viper's bugloss · Echium · Boraginaceae
 virgin's bower · Clematis · Ranunculaceae
 Virginia creeper · Parthenocissus · Vitaceae

wafer-ash · Ptelea · Rutaceae
 wahoo · Euonymus · Celastraceae
 wallflower · Erysimum · Cruciferae
 walnut · Juglans · Juglandaceae
 water arum · Calla · Araceae
 water dropwort · Oenanthe · Umbelliferae
 water hemlock · Cicutia · Umbelliferae
 water-lettuce · Pistia · Araceae
 wheat · Triticum · Gramineae
 white brush · Aloysia · Verbenaceae
 white lead tree · Leucaena · Leguminosae
 white mustard · Sinapis · Cruciferae
 wind flower · Anemone · Ranunculaceae
 winter aconite · Eranthis · Ranunculaceae
 wisteria · Wisteria · Leguminosae
 wolf's-bane · Aconitum · Ranunculaceae
 wood nettle · Laportea · Urticaceae
 wormwood · Artemisia · Compositae

yam bean · Pachyrhizus · Leguminosae
 yam · Dioscorea · Dioscoreaceae
 yarrow · Achillea · Compositae
 yellow rocket · Barbarea · Cruciferae
 yellow star thistle · Centaurea · Compositae
 yellow-nightshade · Pentalinon · Apocynaceae
 yellow-oleander · Thevetia · Apocynaceae
 yew · Taxus · Taxaceae
 yew-pine · Podocarpus · Podocarpaceae
 yuca · Manihot · Euphorbiaceae

PART III • SYMPTOMS OR SYNDROMES OF TOXICITY

ARDS • acute respiratory distress syndrome, symptoms include fluids build up in air pockets in the lungs making breathing difficult to impossible and low blood oxygen

Cellular • inhibition or stimulation of mitosis, neoplastic growths (tumors), lymphocyte transformation, mutagenic activity (induce mutations)

CNS (central nervous system) • headache, dizziness, faintness, weakness, impaired coordination, paralysis, contraction or dilation of pupils, difficulty in breathing, speaking, or seeing, heightened reactions to external stimuli, nervousness, giddiness, trembling, convulsions, depression, seizures, depression, hallucinations, coma

CV (cardiovascular system) • changes in pulse rate and blood pressure, changes in frequency and effectiveness of contractions, anemia, agglutination of red blood cells, bluish discoloration of mouth and skin, changes in oxygen-carrying capacity of blood

Cyanide poisoning • When hydrolyzed, cyanogenic glycosides yield HCN (hydrogen cyanide) or Prussic acid. It moves rapidly through mucous membranes and the respiratory tract. Its most critical effect is inhibiting oxidative phosphorylation by binding to an enzyme (cytochrome C oxidase). This results in the blocking of the mitochondrial transport chain. This stops cellular respiration. Gross symptoms include nausea, headache, confusion, difficulty breathing, seizures, loss of consciousness, cardiac arrest, and death.

Dermatitis • itching, redness, stinging, burning, formation of blisters (vesicles)

GI (gastrointestinal tract) • nausea, retching, vomiting, stomach-abdominal pain, bloating, diarrhea, constipation

M & T (mouth and throat) • tingling, numbness, burning, swelling of lips-tongue-throat, loss of speech or ability to swallow or eat

Mechanical (obstruction) • obstruction of throat, gastrointestinal tract, or nasal passages by accumulated plant material

Mechanical (penetration) • penetration by spines, thorns, etc. of skin, mouth, eyes sockets, etc., leading to infection

Photodermatitis • same as dermatitis, except sunlight activated and with serum leakage into tissues; also known as phytophotodermatitis

Reproductive system • changes in estrus cycles and spermatogenesis, sterility, abortions, stillbirths, teratogens (embryological malformations)

Respiratory distress • wheezing, coughing, emphysema, bronchitis

SDS (sudden death syndrome) • sudden, unexpected death, due typically to cardiovascular failure

Skeletal system • curvature of spine, reduced flexibility, permanent contraction of joints, fusion and malformation of bones

PART IV. PRINCIPAL SOURCES

There is an extensive poisonous plants literature available in texts, monographs, and professional journals. I have listed the sources that I used most frequently. If you go to my account at digitalcommons@humboldt.edu/botany_jps you will find a much more complete introduction to the poisonous plants literature.

I have relied especially on Burrows & Tyrl (2013) and Wink (2009) for updating entries of toxic principles and expanding on symptoms over previous editions.

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