List of poisonous plants

700 cattle that were killed overnight by poisonous plants. Australia, 1907.

Plants cannot move to escape their predators, so they must have other means of protecting themselves from herbivorous animals. Some plants have physical defenses such as thorns, but by far the most common protection is chemical.[1] Over millennia, natural selection has produced a complicated and vast array of chemical compounds that deter herbivores. Tannin is a compound that emerged relatively early in the evolutionary history of plants, while more complex molecules such as polyacetylenes are found in younger groups of plants such as the Asterales. Many of the plant defense compounds arose to defend against consumption by insects, although when livestock or humans consume such plants, they may also experience negative effects, ranging from mild discomfort to death.

Many of these poisonous compounds also have important medicinal benefits.[2] There are so many kinds of plant defenses that there are many unanswered questions about them. Questions include (1) which plants have which type of defenses, (2) which herbivores are the plants defended against, (3) what are the chemical structures of the compounds that provide defense, (4) and what are the potential medical uses of these compounds? This is still an active area of research with important implications for understanding plant evolution, and for medical research.

Below is an extensive, if incomplete, list of plants containing poisonous parts that pose a serious risk of illness, injury, or death to humans or animals. Human fatalities caused by poisonous plants – especially resulting from accidental ingestion – are rare in the USA.[3]

Poisonous food plants

Many food plants possess toxic parts, are toxic unless processed, or are toxic at certain stages of their life. Notable examples include:

- **Apple** (*Malus domestica*). Seeds are mildly poisonous, containing a small amount of amygdalin, a cyanogenic glycoside. The quantity contained is usually not enough to be dangerous to humans, but it is possible to ingest enough seeds to provide a fatal dose.
- **Cassava** (*Manihot esculenta*) Roots and leaves contain two cyanogenic glucosides, linamarin and lotaustralin. These are decomposed by linamarase, a naturally occurring enzyme in cassava, liberating hydrogen cyanide . Cassava varieties are often categorized as either sweet or bitter, respectively signifying the absence or presence of toxic levels of cyanogenic glucosides. The 'sweet' cultivars can produce as little as 20 milligrams of cyanide per kilogram of fresh roots, whereas bitter ones may produce more than 50 times as much (1 g/kg). Cassavas grown during drought are especially high in these toxins. A dose of 40 mg of pure cassava cyanogenic glucoside is sufficient to kill a cow. It can also cause severe calcific pancreatitis in humans, leading to chronic pancreatitis. Processing (soaking, cooking, fermentation, etc.) of cassava root is necessary to remove the toxins and avoid getting sick. "Chronic, low-level cyanide exposure is associated with the development of goiter and with tropical ataxic neuropathy, a nerve-damaging disorder that renders a person unsteady and uncoordinated. Severe cyanide poisoning, particularly during famines, is associated with outbreaks of a debilitating, irreversible paralytic disorder called konzo and, in some cases, death. The incidence of konzo and tropical ataxic neuropathy can be as

high as 3 percent in some areas." For some smaller-rooted sweet varieties, cooking is sufficient to eliminate all toxicity. The cyanide is carried away in the processing water and the amounts produced in domestic consumption are too small to have environmental impact. The larger-rooted, bitter varieties used for production of flour or starch must be processed to remove the cyanogenic glucosides. Industrial production of cassava flour, even at the cottage level, may generate enough cyanide and cyanogenic glycosides in the effluents to have a severe environmental impact.

- **Cherry** (*Prunus cerasus*), as well as other *Prunus* species such as peach (*Prunus persica*), plum (*Prunus domestica*), almond (*Prunus dulcis*), and apricot (*Prunus armeniaca*). Leaves and seeds contain cyanogenic glycosides.
- **Indian pea** (*Lathyrus sativus*). A legume grown in Asia and East Africa as an insurance crop for use during famines. Like other grain legumes, *L. sativus* produces a high-protein seed. The seeds contain variable amounts of β-N-Oxalyl-L-α,β-diaminopropionic acid or ODAP, a neurotoxic amino acid. ODAP causes wasting and paralysis if eaten over a long period, and is considered as the cause of the disease neurolathyrism, a neurodegenerative disease that causes paralysis of the lower body and emaciation of gluteal muscle (buttocks). The disease has been seen to occur after famines in Europe (France, Spain, Germany), North Africa and South Asia, and is still prevalent in Eritrea, Ethiopia and parts of Afghanistan when *Lathyrus* seed is the exclusive or main source of nutrients for extended periods.
- **Kidney bean** or **common bean** (*Phaseolus vulgaris*). The toxic compound phytohaemagglutinin, a lectin, is present in many varieties of common bean but is especially concentrated in red kidney beans. The lectin has a number of effects on cell metabolism; it induces mitosis, and affects the cell membrane in regard to transport and permeability to proteins. It agglutinates most mammalian red blood cell types. The primary symptoms of phytohaemagglutinin poisoning are nausea, vomiting, and diarrhea. Onset is from 1 to 3 hours after consumption of improperly prepared beans, and symptoms typically resolve within a few hours. Consumption of as few as four or five raw kidney beans may be sufficient to trigger symptoms. Phytohaemagglutinin can be deactivated by cooking beans at 100 °C (212 °F) for ten minutes. However, for dry beans the U.S. Food and Drug Administration (FDA) also recommends an initial soak of at least 5 hours in water; the soaking water should be discarded. The ten minutes at 100 °C (212 °F) is required to degrade the toxin, and is much shorter than the hours required to fully cook the beans themselves. However, lower cooking temperatures may have the paradoxical effect of potentiating the toxic effect of haemagglutinin. Beans cooked at 80 °C (176 °F) are reported to be up five times as toxic as raw beans. Outbreaks of poisoning have been associated with the use of slow cookers, the low cooking temperatures of which may be unable to degrade the toxin.
- **Nutmeg** (*Myristica fragrans*). Contains myristicin. Myristicin is a naturally occurring insecticide and acaricide with possible neurotoxic effects on neuroblastoma cells. It has psychoactive properties at doses much higher than used in cooking. Raw nutmeg produces anticholinergic-like symptoms, attributed to myristicin and elemicin. The intoxicating effects of myristicin can lead to a physical state somewhere between waking and dreaming; euphoria is reported and nausea is often experienced. Users also report bloodshot eyes and memory disturbances.[4] Myristicin is also known to induce hallucinogenic effects, such as visual distortions. Nutmeg intoxication has an extremely long time before peak is reached, sometimes taking up to seven hours, and effects can be felt for 24 hours, with lingering effects lasting up to 72 hours.[5][6]
- **Lima bean** or **butter bean** (*Phaseolus lunatus*). Raw beans contain dangerous amounts of linamarin, a cyanogenic glucoside.
- **Lupin**. Some varieties have edible seeds. Sweet Lupins have less, and Bitter Lupins have more of the toxic alkaloids lupinine and sparteine.
- **Onions and garlic**. Onions and garlic (genus *Allium*) contain thiosulphate, which in high doses is toxic to dogs, cats and some other livestock.
- **Potato** (*Solanum tuberosum*). Potatoes contain toxic compounds known as glycoalkaloids, of which the most prevalent are solanine and chaconine. Solanine is also found in other members of the Solanaceae plant family,

which includes *Atropa belladonna* ("deadly nightshade") and *Hyoscyamus niger* ("henbane") (see entries below). The concentration of glycoalkaloid in wild potatoes suffices to produce toxic effects in humans. The toxin affects the nervous system, causing headaches, diarrhea and intense digestive disturbances, cramps, weakness and confusion, and in severe cases coma and death. Poisoning from cultivated potatoes occurs very rarely however, as the toxic compounds in the potato plant are, in general, concentrated in the green portions of the plant and in the fruits, and cultivated potato varieties contain lower toxin levels.[7] Cooking at high temperatures (over 170 °C or 340 °F) also partly destroys the toxin. However, exposure to light, physical damage, and age increase glycoalkaloid content within the tuber, the highest concentrations occurring just underneath the skin. Tubers which are exposed to light turn green from chlorophyll synthesis, thus giving a visual clue as to areas of the tuber that may have become more toxic; however, this does not provide a definitive guide, as greening and glycoalkaloid accumulation can occur independently of each other. Some varieties of potato contain greater glycoalkaloid concentrations than others; breeders developing new varieties test for this, and sometimes have to discard an otherwise promising cultivar. Breeders try to keep solanine levels below 200 mg/kg (200 ppmw). However, when these commercial varieties turn green, even they can approach concentrations of solanine of 1000 mg/kg (1000 ppmw). The U.S. National Toxicology Program suggests that the average American consume at most 12.5 mg/day of solanine from potatoes (the toxic dose is actually several times this, depending on body weight). Douglas L. Holt, the State Extension Specialist for Food Safety at the University of Missouri, notes that no reported cases of potato-source solanine poisoning have occurred in the U.S. in the last 50 years, and most cases involved eating green potatoes or drinking potato-leaf tea.[*citation needed*]

- **Rhubarb** (*Rheum rhaponticum*). The leaf stalks (petioles) are edible, but the leaves themselves contain notable quantities of oxalic acid, which is a nephrotoxic and corrosive acid that is present in many plants. Symptoms of poisoning include kidney disorders, convulsions and coma. Rarely fatal. The LD_{50} (median lethal dose) for pure oxalic acid in rats is about 375 mg/kg body weight, or about 25 grams for a 65 kg (~140 lb) human. While the oxalic acid content of rhubarb leaves can vary, a typical value is about 0.5%,[8] so a rather unlikely 5 kg of the extremely sour leaves would have to be consumed to reach an LD_{50} of oxalic acid. Cooking the leaves with soda can make them more poisonous by producing soluble oxalates.[9] However, the leaves are believed to also contain an additional, unidentified toxin, which might be an anthraquinone glycoside (also known as senna glycosides). In the edible leaf stalks (petioles), the amount of oxalic acid is much lower, only about 2-2.5% of the total acidity which is dominated by malic acid.[10] This means that even the raw stalks may not be hazardous (though they are generally thought to be in the US). However the tart taste of raw stalks is so strong as to be unpalatable to many.
- **Tomato** (*Solanum lycopersicum*). Like many other nightshades, tomato leaves and stems contain solanine that is toxic if ingested, causing digestive upset and nervous excitement. Use of tomato leaves as a tea (tisane) has been responsible for at least one death. Leaves, stems, and green unripe fruit of the tomato plant also contain small amounts of the poisonous alkaloid tomatine, although levels are generally too small to be dangerous. Ripe tomatoes do not contain any detectable tomatine. Tomato plants can be toxic to dogs if they eat large amounts of the fruit, or chew plant material.[11]

Other poisonous plants

- ***Abrus precatorius*** (known commonly as **jequirity**, **crab's eye**, **rosary pea**, ***'John Crow'* bead**, **precatory bean**, **Indian licorice**, **akar saga**, **giddee giddee**, **jumbie bead**, **ruti**, and **weather plant**). The attractive seeds (usually about the size of a ladybug, glossy red with one black dot) contain abrin, which is related to ricin, and very potent. Symptoms of poisoning include nausea, vomiting, convulsions, liver failure, and death, usually after several days. Ingesting a single seed can kill an adult human. The seeds have been used as beads in jewelry, which is dangerous; inhaled dust is toxic and pinpricks can be fatal. The seeds are unfortunately attractive to children.
- ***Aconitum*** (Several species, commonly called **aconite**, **wolfsbane** and **monkshood**) All parts are poisonous. The poison is an alkaloid called aconitine, which disables nerves, lowers blood pressure, and can stop the heart. Even casual skin contact should be avoided; symptoms include numbness, tingling, and cardiac irregularity. It has been

used as poison for bullets (by Germany in WWII), as a bait and arrow poison (ancient Greece), and to poison water supplies (reports from ancient Asia). If ingested, it usually causes burning, tingling, and numbness in the mouth, followed by vomiting and nervous excitement. It is usually a quick-acting poison. Used in the past for killing wolves (hence one of the common names).

- ***Actaea pachypoda*** (also known as **doll's eyes** or **white baneberry**). All parts are poisonous, but especially the berries, the consumption of which has a sedative effect on cardiac muscle tissue and can cause cardiac arrest.
- **Adam and Eve –** see ***Arum maculatum***.
- ***Adenium obesum*** (also known as **sabi star**, **kudu** or **desert-rose**). Exudes a highly toxic sap which is used by the Meridian High and Hadza in Tanzania to coat arrow-tips for hunting.
- ***Aesculus hippocastanum*** (commonly known as **horse-chestnut**). All parts of the plant are poisonous, causing nausea, muscle twitches, and sometimes paralysis.
- **African sumac –** see ***Rhus lancia***.
- ***Agave***. The juice of a number of species causes acute contact dermatitis, with blistering lasting several weeks and recurring itching for several years thereafter.
- ***Ageratina altissima*** (commonly known as **white snakeroot**). All parts are poisonous, causing nausea and vomiting. Often fatal. Milk from cattle that have eaten white snakeroot can sicken, or kill, humans (milk sickness).
- ***Agrostemma githago*** (commonly known as **corn cockle**). Contains the saponins githagin and agrostemmic acid. All parts of the plant are reported to be poisonous and may produce chronic or acute, potentially fatal poisoning, although it has been used in folk medicine to treat a range of ills, from parasites to cancer . There are no known recent clinical studies of corn cockle which provide a basis for dosage recommendations, however doses higher than 3 g [of seeds] are considered toxic.
- **Akar saga –** see ***Abrus precatorius***.
- ***Amianthium –*** see **Deathcamas**.
- **Angel's Trumpet –** see ***Brugmansia***.
- **Angel Wings –** see ***Caladium***.
- ***Anticlea –*** see **Deathcamas**.
- ***Aquilegia*** (also known as **columbine**). Several species. Seeds and roots contain cardiogenic toxins which cause both severe gastroenteritis and heart palpitations if consumed. The flowers of various species were consumed in moderation by Native Americans as a condiment with other fresh greens, and are reported to be very sweet, and safe if consumed in small quantities. Native Americans also used very small amounts of the root as an effective treatment for ulcers. However, the medical use of this plant is difficult due to its high toxicity; columbine poisonings are easily fatal.[12]
- ***Areca catechu*** (commonly known as **betel nut palm** and **pinyang**). The nut contains an alkaloid related to nicotine which is addictive. It produces a mild high, some stimulation, and lots of red saliva, which cannot be swallowed as it causes nausea. Withdrawal causes headache and sweats. Use is correlated with mouth cancer, and to a lesser extent asthma and heart disease.
- ***Arum maculatum*** (commonly known as **cuckoo-pint**, **lords and ladies**, **jack in the pulpit**, **wake robin**, **wild arum**, **devils and angels**, **cows and bulls**, **Adam and Eve**, **bobbins** and **starch-root**). All parts of the plant can produce allergic reactions. The bright red berries contain oxalates of saponins and can cause skin, mouth and throat irritation, resulting in swelling, burning pain, breathing difficulties and stomach upset. One of the most common causes of plant poisoning.
- ***Asparagus***. The berries are poisonous.
- ***Atropa belladonna*** (commonly known as **deadly nightshade**, **belladonna**, **devil's cherry** and **dwale**, an Anglo-Saxon term meaning stupifying drink). One of the most toxic plants found in the Western hemisphere. All parts of the plant contain tropane alkaloids. The active agents are atropine, hyoscine (scopolamine), and hyoscyamine, which have anticholinergic properties. The symptoms of poisoning include dilated pupils,

sensitivity to light, blurred vision, tachycardia, loss of balance, staggering, headache, rash, flushing, dry mouth and throat, slurred speech, urinary retention, constipation, confusion, hallucinations, delirium, and convulsions. The root of the plant is generally the most toxic part, though this can vary from one specimen to another. Ingestion of a single leaf of the plant can be fatal to an adult. Casual contact with the leaves can cause skin pustules. The berries pose the greatest danger to children because they look attractive and have a somewhat sweet taste. The consumption of two to five berries by children and ten to twenty berries by adults can be lethal. In 2009 a case of *A. belladonna* being mistaken for blueberries, with six berries ingested by an adult woman, was documented to result in severe anticholinergic syndrome. The plant's deadly symptoms are caused by atropine's disruption of the parasympathetic nervous system's ability to regulate involuntary activities such as sweating, breathing, and heart rate. The antidote for atropine poisoning is physostigmine or pilocarpine. *A. belladonna* is also toxic to many domestic animals, causing narcosis and paralysis. However, cattle and rabbits eat the plant seemingly without suffering harmful effects. In humans its anticholinergic properties will cause the disruption of cognitive capacities like memory and learning.

- **Autumn crocus –** see ***Colchicum autumnale***.
- **Azalea –** see ***Rhododendron***.
- **Bittersweet nightshade –** see ***Solanum dulcamara***.
- **Black hellebore –** see ***Helleborus niger***.
- **Black locust –** see ***Robinia pseudoacacia*** and see ***Robinia***.
- **Black nightshade –** see ***Solanum nigrum***.
- **Bleeding heart –** see ***Dicentra cucullaria***.
- **Blind-your-eye mangrove –** see ***Excoecaria agallocha***.
- **Blister Bush –** see ***Peucedanum galbanum***.
- **Bloodroot –** see ***Sanguinaria canadensis***.
- **Blue-green algae –** see **Cyanobacteria**.
- **Bobbins –** see ***Arum maculatum***.
- **Bracken –** see ***Pteridium aquilinum***.
- **Broom –** see ***Cytisus scoparius***.
- ***Brugmansia*** (commonly known as **angel's trumpet**). All parts of the plant contain the tropane alkaloids scopolamine and atropine. Often fatal.
- **Calabar Bean –** see ***Physostigma venenosum***.
- ***Caladium*** (commonly known as **angel wings**, **elephant ear** and **heart of Jesus**). All parts of the plant are poisonous. Symptoms are generally irritation, pain, and swelling of tissues. If the mouth or tongue swell, breathing may be fatally blocked.
- **Castor oil plant –** see ***Ricinus communis***.
- ***Cerbera odollam*** (commonly known as the **suicide tree**). The seeds contain cerberin, a potent toxin related to digoxin. The poison blocks the calcium ion channels in heart muscle, causing disruption of the heart beat. This is typically fatal and can result from ingesting a single seed. Cerberin is difficult to detect in autopsies and its taste can be masked with strong spices, such as a curry. It is often used in homicide and suicide in India; Kerala's suicide rate is about three times the Indian average. In 2004, a team led by Yvan Gaillard of the Laboratory of Analytical Toxicology in La Voulte-sur-Rhône, France, documented more than 500 cases of fatal Cerbera poisoning between 1989 and 1999 in Kerala. They said "To the best of our knowledge, no plant in the world is responsible for as many deaths by suicide as the *odollam* tree.' A related species is *Cerbera tanghin* the seeds of which are known as *tanghin poison nut* and have been used as an 'ordeal poison'.
- ***Chelidonium majus*** (also known as **greater celandine**). The whole plant is toxic in moderate doses as it contains a range of isoquinoline alkaloids, but there are claimed to be therapeutic uses when used at the correct dosage. The main alkaloid present in the herb and root is coptisine, with berberine, chelidonine, sanguinarine and chelerythrine also present. Sanguinarine is particularly toxic with an LD_{50} of only 18 mg per kg body weight. The

effect of the fresh herb is analgesic, cholagogic, antimicrobial and oncostatic, with action as a central nervous system sedative. In animal tests, *Chelidonium majus* is shown to be cytostatic. Early studies showed that the latex causes contact dermatitis and eye irritation. Stains on skin of the fingers are sometimes reported to cause eye irritation after rubbing the eyes or handling contact lenses. The characteristic latex also contains proteolytic enzymes and the phytocystatin chelidostatin, a cysteine protease inhibitor.

- **Christmas rose –** see ***Helleborus niger***.
- ***Cicuta*** (several species) (commonly known as **water hemlock**, **cowbane**, **wild carrot**, **snakeweed**, **poison parsnip**, **false parsley**, **children's bane** and **death-of-man**). The root, when freshly pulled out of the ground, is extremely poisonous and contains the toxin *cicutoxin*, a central nervous system stimulant, resulting in seizures. When dried, the poisonous effect is reduced. The most common species is *C. maculata*; one of the species found in the Western USA, *C. douglasii*, often found in pastures and swamps, has especially thick stems and very large and sturdy flowers which are sometimes harvested for flower displays. This is inadvisable as the sap is also toxic.
- **Cocklebur –** see ***Xanthium***.
- ***Colchicum autumnale*** (commonly known as **autumn crocus** and **meadow saffron**). The bulbs contain colchicine. Colchicine poisoning has been compared to arsenic poisoning; symptoms start 2 to 5 hours after the toxic dose has been ingested and include burning in the mouth and throat, fever, vomiting, diarrhea, abdominal pain and kidney failure. These symptoms may set in as many as 24 hours after the exposure. Onset of multiple-system organ failure may occur within 24 to 72 hours. This includes hypovolemic shock due to extreme vascular damage and fluid loss through the GI tract, which may result in death. Additionally, sufferers may experience kidney damage resulting in low urine output and bloody urine; low white blood cell counts (persisting for several days); anemia; muscular weakness; and respiratory failure. Recovery may begin within 6 to 8 days. There is no specific antidote for colchicine, although various treatments do exist.[13] Despite dosing issues concerning its toxicity, colchicine is prescribed in the treatment of gout, familial Mediterranean fever, pericarditis and Behçet's disease. It is also being investigated for its use as an anti-cancer drug.
- **Columbine –** see ***Aquilegia***.
- ***Conium maculatum*** (commonly known as **hemlock**, **poison hemlock**, **spotted parsley**, **spotted cowbane**, **bad-man's oatmeal**, **poison snakeweed** and **beaver poison**). All parts of the plant contain the alkaloid coniine which causes stomach pains, vomiting, and progressive paralysis of the central nervous system. Can be fatal; it is the poison that killed Socrates. Not to be confused with hemlock trees (*Tsuga* spp), which, while not edible, are not nearly as toxic as the herbaceous plant *Conium*.
- ***Consolida*** (commonly known as **larkspur**). Young plants and seeds are poisonous, causing nausea, muscle twitches, paralysis. Often fatal.
- ***Convallaria majalis*** (commonly known as **lily of the valley**). Contains 38 different cardiac glycosides.
- ***Coriaria myrtifolia*** (commonly known as **redoul**). A mediterranean plant containing the toxin coriamyrtin, ingestion of which produces digestive, neurological and respiratory problems. The poisonous fruits superficially resemble blackberries and may mistakenly be eaten as such. Can be fatal in children.
- **Corn cockle –** see ***Agrostemma githago***.
- **Corn lily –** see ***Veratrum***.
- **Cowbane –** see ***Cicuta***.
- **Cows and bulls –** see ***Arum maculatum***.
- **Crab's eye –** see ***Abrus precatorius***.
- **Cuckoo-pint –** see ***Arum maculatum***.
- **Cyanobacteria** A phylum of bacteria, containing many different species, including *Anacystis cynea* and *Anabaena circinalis*, producing several different toxins known collectively as cyanotoxins. These can include neurotoxins, hepatotoxins, endotoxins and cytotoxins. Potentially hazardous particularly to marine animals, but also to humans.

- ***Cytisus scoparius*** (commonly known as **broom** or **common broom**). Contains toxic alkaloids that depress the heart and nervous system.[14] The alkaloid sparteine is a class 1a antiarrhythmic agent; a sodium channel blocker. It is not FDA approved for human use as an antiarrhythmic agent, and it is not included in the Vaughn Williams classification of antiarrhythmic drugs.
- **Daffodil –** see ***Narcissus***.
- ***Daphne***. The berries (either red or yellow) are poisonous, causing burns to mouth and digestive tract, followed by coma. Often fatal.
- **Darnel –** see ***Lolium temulentum***.
- ***Datura*** Contains the alkaloids scopolamine and atropine. Datura has been used as a hallucinogenic drug by the native peoples of the Americas and others. Incorrect dosage can lead to death.
- ***Datura stramonium*** (commonly known as **jimson weed**, **thorn apple**, **stinkweed** and **Jamestown weed**). All parts of the plant are poisonous, causing abnormal thirst, vision distortions, delirium, incoherence, coma. Often fatal. A significant grazing livestock poison in North America.
- **Deadly nightshade –** see ***Atropa belladonna***.
- **Deathcamas –** various genera in the Melanthieae have species whose common name includes "deathcamas", including ***Amianthium***, ***Anticlea***, ***Stenanthium***, ***Toxicoscordion*** and ***Zigadenus***. All parts of the plants are toxic, due to the presence of alkaloids. Grazing animals, such as sheep and cattle, may be affected and human fatalities have occurred.[15]
- ***Delphinium*** (also known as **larkspur**). Contains the alkaloid delsoline. Young plants and seeds are poisonous, causing nausea, muscle twitches, paralysis, often fatal.
- ***Dendrocnide moroides*** (also known as **stinging tree** and **gympie gympie**). Capable of inflicting a painful sting when touched. The stinging may last for several days and is exacerbated by touching, rubbing, and cold. Can be fatal.
- **Devils and angels –** see ***Arum maculatum***.
- ***Dicentra cucullaria*** (also known as **bleeding heart** and **Dutchman's breeches**). Leaves and roots are poisonous and cause convulsions and other nervous symptoms.
- ***Dichapetalum cymosum*** (also known as **gifblaar**). Well known as a livestock poison in South Africa; this plant contains the metabolic poison fluoroacetic acid.
- ***Dieffenbachia*** (commonly known as *dumbcane*'). All parts are poisonous, causing intense burning, irritation, and immobility of the tongue, mouth, and throat. Swelling can be severe enough to block breathing, leading to death.
- ***Digitalis purpurea*** (commonly known as **foxglove**). The leaves, seeds, and flowers are poisonous, containing cardiac or other steroid glycosides. These cause irregular heartbeat, general digestive upset, and confusion. Can be fatal.
- **Doll's eyes –** see ***Actaea pachypoda***.
- **Dumbcane –** see ***Dieffenbachia***.
- **Dutchman's breeches –** see ***Dicentra cucullaria***.
- **Elder/Elderberry –** see ***Sambucus***.
- ***Euonymus europaeus*** (commonly known as **spindle**, **European spindle** or **spindle tree**). The fruit is poisonous, containing amongst other substances, the alkaloids theobromine and caffeine, as well as an extremely bitter terpene. Poisonings are more common in young children, who are enticed by the brightly coloured fruits. Ingestion can result in liver and kidney damage and even death. There are many other species of *Euonymus*, many of which are also poisonous.
- ***Excoecaria agallocha*** (commonly known as **milky mangrove**, **blind-your-eye mangrove** and **river poison tree**). Contact with latex can cause skin irritation and blistering; eye contact can cause temporary blindness.
- **False acacia –** see ***Robinia pseudoacacia*** and see ***Robinia***.
- **False hellebore –** see ***Veratrum***.
- **Foxglove –** see ***Digitalis purpurea***.

- **Frangipani –** see ***Plumeria***.
- ***Gelsemium sempervirens*** (commonly known as **yellow jessamine**). All parts are poisonous, causing nausea and vomiting. Often fatal. It is possible to become ill from ingesting honey made from jessamine nectar.
- **Giant hogweed –** see ***Heracleum mantegazzianum***.
- **Giddee giddee –** see ***Abrus precatorius***.
- **Gifblaar –** see ***Dichapetalum cymosum***.
- **Greater celandine –** see ***Chelidonium majus***.
- **Gympie gympie –** see ***Dendrocnide moroides***.
- **Heart of Jesus –** see ***Caladium***.
- ***Hedera helix*** (or **common ivy**) The leaves and berries are poisonous, causing stomach pains, labored breathing, possible coma.
- ***Helleborus niger*** (also known as **Christmas rose**) Contains protoanemonin,[16] or ranunculin,[17] which has an acrid taste and can cause burning of the eyes, mouth and throat, oral ulceration, gastroenteritis and hematemesis.[18]
- **Hemlock –** see ***Conium maculatum***
- **Hemlock water-dropwort –** see ***Oenanthe crocata***.
- **Henbane –** see ***Hyoscyamus niger***.
- ***Heracleum mantegazzianum*** (also known as **giant hogweed**). The sap is phototoxic, causing phytophotodermatitis (severe skin inflammations) when affected skin is exposed to sunlight or to UV-rays. Initially the skin colours red and starts itching. Then blisters form as reaction continues over 48 hours. They form black or purplish scars, which can last several years. Hospitalisation may become necessary. Presence of minute amounts of sap in the eyes can lead to temporary or even permanent blindness.
- ***Hippomane mancinella*** (commonly known as **manchineel**). All parts of this tree, including the fruit, contain toxic phorbol esters typical of the Euphorbiaceae plant family. Specifically the tree contains 12-deoxy-5-hydroxyphorbol-6gamma, 7alpha-oxide, hippomanins, mancinellin, sapogenin, phloracetophenone-2, 4-dimethylether is present in the leaves, while the fruits possess physostigmine. Contact with the milky white latex produces strong allergic dermatitis.[19] Standing beneath the tree during rain will cause blistering of the skin from even slight contact with this liquid (even a small drop of rain with the milky substance in it will cause the skin to blister). Burning tree parts may cause blindness if the smoke reaches the eyes. The fruit can also be fatal if eaten. Many trees carry a warning sign, while others have been marked with a red "X" on the trunk to indicate danger. In the French Antilles the trees are often marked with a painted red band a few feet above the ground.[20] The Caribs used the latex of this tree to poison their arrows and would tie captives to the trunk of the tree, ensuring a slow and painful death. A poultice of arrowroot (*Maranta arundinacea*) was used by the Arawaks and Taíno as an antidote against such arrow poisons. The Caribs were also known to poison the water supply of their enemies with the leaves.[*citation needed*] Spanish explorer Juan Ponce de León was struck by an arrow that had been poisoned with manchineel sap during battle with the Calusa in Florida, dying shortly thereafter.
- **Horse chestnut –** see ***Aesculus hippocastanum***.
- **Holly (European) –** see ***Ilex aquifolium***.
- **Hyacinth –** see ***Hyacinthus orientalis***.
- ***Hyacinthus orientalis*** (commonly known as **hyacinth**). The bulbs are poisonous, causing nausea, vomiting, gasping, convulsions, and possibly death. Even handling the bulbs can cause skin irritation.
- ***Hyoscyamus niger*** (commonly known as **henbane**). Seeds and foliage contain hyoscyamine, scopolamine and other tropane alkaloids. Can produce dilated pupils, hallucinations, increased heart rate, convulsions, vomiting, hypertension and ataxia.
- ***Ilex aquifolium*** (commonly known as **European holly**). The berries cause gastroenteritis, resulting in nausea, vomiting and diarrhoea.
- **Indian licorice –** see ***Abrus precatorius***.

- **Ivy (Common) –** see ***Hedera helix***.
- **Jack in the pulpit –** see ***Arum maculatum***.
- ***Jacobaea vulgaris*** (commonly known as **ragwort**). Contains many different alkaloids, including jacobine, jaconine, jacozine, otosenine, retrorsine, seneciphylline, senecionine, and senkirkine. Poisonous to livestock and hence of concern to people who keep horses and cattle. Horses do not normally eat fresh ragwort due to its bitter taste, however it loses this taste when dried, and become dangerous in hay. The result, if sufficient quantity is consumed, can be irreversible cirrhosis of the liver. Signs that a horse has been poisoned include yellow mucus membranes, depression, and lack of coordination. The danger is that the toxin can have a cumulative effect; the alkaloid does not actually accumulate in the liver but a breakdown product can damage DNA and progressively kills cells. *Jacobaea vulgaris* is also theoretically poisonous to humans, although poisoning is unlikely as it is distasteful and not used as a food. However some sensitive individuals can suffer from an allergic skin reaction after handling the plant because, like many members of the compositae family, it contains sesquiterpine lactones (which are different from the pyrrolizidine alkaloids which are responsible for the toxic effects), which can cause compositae dermatitis.
- **Jamestown weed –** see ***Datura stramonium*** and ***Datura***.
- **Jequirity –** see ***Abrus precatorius***.
- **Jerusalem cherry –** see ***Solanum pseudocapsicum***.
- **Jimson weed –** see ***Datura stramonium*** and ***Datura***.
- **'John Crow' Bead –** see ***Abrus precatorius***.
- **Jumbie bead –** see ***Abrus precatorius***.
- ***Kalanchoe delagoensis*** (commonly known as **mother of millions**) Contains bufadienolide cardiac glycosides[21] which can cause cardiac poisoning, particularly in grazing animals.[22] During 1997, 125 head of cattle died after eating mother-of-millions on a travelling stock reserve near Moree, NSW.
- ***Kalmia latifolia*** (commonly known as **mountain laurel**). Contains andromedotoxin and arbutin. The green parts of the plant, flowers, twigs, and pollen are all toxic, and symptoms of toxicity begin to appear about 6 hours following ingestion. Poisoning produces anorexia, repeated swallowing, profuse salivation, depression, uncoordination, vomiting, frequent defecation, watering of the eyes, irregular or difficulty breathing, weakness, cardiac distress, convulsions, coma, and eventually death. Autopsy will show gastrointestinal irritation and hemorrhage.
- ***Laburnum***. All parts of the plant and especially the seeds are poisonous and can be lethal if consumed in excess. The main toxin is cytisine, a nicotinic receptor agonist. Symptoms of poisoning may include intense sleepiness, vomiting, excitement, staggering, convulsive movements, slight frothing at the mouth, unequally dilated pupils, coma and death. In some cases, diarrhea is very severe and at times the convulsions are markedly tetanic.
- **Larkspur –** see ***Consolida*** and ***Delphinium***.
- ***Ligustrum*** (several species, commonly known as **privet**). Berries and leaves are poisonous. Berries contain syringin, which causes digestive disturbances, nervous symptoms. Can be fatal. Privet is one of several plants which are poisonous to horses. Privet pollen is known to cause asthma and eczema in sufferers. It is banned from sale or cultivation in New Zealand due to the effects of its pollen on asthma sufferers.
- ***Lilium*** (commonly known as **lily**). Most have an unknown water-soluble toxin found in all parts of the plant. Extremely poisonous, yet attractive, to cats, causing acute renal failure; 2 petals can kill.
- **Lily –** see ***Lilium***.
- **Lily of the valley –** see ***Convallaria majalis***.
- ***Lolium temulentum*** (commonly called **darnel** or **poison ryegrass**). The seeds and seed heads of this common garden weed may contain the alkaloids temuline and loliine. Some experts also point to the fungus ergot or fungi of the genus endoconidium, both of which grow on the seed heads of rye grasses, as an additional source of toxicity.
- **Lords and ladies –** see ***Arum maculatum***.

- **Madiera winter cherry –** see ***Solanum pseudocapsicum***.
- **Manchineel tree –** see ***Hippomane mancinella***.
- **Mango tree –** Mango peel and sap contains urushiol, the chemical in poison ivy and poison sumac that can cause urushiol-induced contact dermatitis in susceptible people. Cross-reactions between mango contact allergens and urushiol have been observed. Those with a history of poison ivy or poison oak contact dermatitis may be most at risk for such an allergic reaction. Urushiol is also present in mango leaves and stems. During mango's primary ripening season, it is the most common source of plant dermatitis in Hawaii.
- **Mayapple –** see ***Podophyllum peltatum***.
- **Meadow saffron –** see ***Colchicum autumnale***.
- ***Menispermum*** (commonly known as **moonseed**). The fruits and seeds are poisonous, causing nausea and vomiting. Often fatal.
- **Milky mangrove –** see ***Excoecaria agallocha***.
- **Monkshood –** see ***Aconitum***.
- **Moonseed –** see ***Menispermum***.
- **Mother of millions –** see ***Kalanchoe delagoensis***.
- **Mountain laurel –** see ***Kalmia latifolia***.
- ***Narcissus*** (commonly known as **daffodil**). Various species and garden cultivars. The bulbs are poisonous and cause nausea, vomiting, and diarrhea. Can be fatal. Stems also cause headaches, vomiting, and blurred vision.
- ***Nerium oleander*** (commonly known as **oleander**). All parts are toxic, but especially the leaves and woody stems. Contains nerioside, oleandroside, saponins and cardiac glycosides. Causes severe digestive upset, heart trouble and contact dermatitis. The smoke of burning oleander can cause reactions in the lungs, and can be fatal.


Oleander is toxic to humans and animals.

- **Oak –** see ***Quercus***.
- ***Oenanthe crocata*** (commonly known as **hemlock water dropwort**). Contains oenanthotoxin. The leaves may be eaten safely by livestock, but the stems and especially the carbohydrate-rich roots are much more poisonous. Animals familiar with eating the leaves may eat the roots when these are exposed during ditch clearance – one root is sufficient to kill a cow, and human fatalities are also known in these circumstances. Scientists at the University of Eastern Piedmont in Italy claimed to have identified this as the plant responsible for producing the sardonic grin,[23] and it is the most-likely candidate for the "sardonic herb," which was a neurotoxic plant used for the ritual killing of elderly people in Phoenician Sardinia. When these people were unable to support themselves, they were intoxicated with this herb and then dropped from a high rock or beaten to death. Criminals were also executed in this way.
- **Oleander –** see ***Nerium oleander***.
- **Ongaonga –** see ***Urtica ferox***.
- ***Passiflora caerulea*** (also known as the **blue passion flower** or the **common passion flower**). The leaves contain cyanogenic glycoside, which breaks down into cyanide.
- **Passion flower (blue** or **common) –** see ***Passiflora caerulea***.
- ***Peucedanum galbanum*** (commonly known as **blister bush**). All parts are poisonous, and contact causes painful blistering that is intensified with exposure to sunlight.
- ***Physostigma venenosum*** (commonly known as **calabar bean** and also as **ordeal beans** due to their former use in trials by ordeal). The toxin in the seeds is the parasympathomimetic alkaloid physostigmine, a reversible cholinesterase inhibitor. Symptoms of poisoning include copious saliva, nausea, vomiting, diarrhea, anorexia, dizziness, headache, stomach pain, sweating, dyspepsia and seizures., and can lead to cholinergic syndrome or "SLUDGE syndrome". Medicinal uses of physostigmine include the treatment of myasthenia gravis, glaucoma,

Alzheimer's disease and delayed gastric emptying.

- ***Plumeria*** (commonly known as **frangipani**). Contact with the milky latex may irritate eyes and skin.
- ***Phytolacca*** (commonly known as **pokeweed**). Leaves, berries and roots contain *phytolaccatoxin* and *phytolaccigenin*. Toxin in young leaves is reduced with repeated boiling and draining. Ingestion of poisonous parts of the plant may cause severe stomach cramping, persistent diarrhoea, nausea, vomiting (sometimes bloody), slow and difficult breathing, weakness, spasms, hypertension, severe convulsions, and death.
- ***Podophyllum peltatum*** (commonly known as **mayapple**). Green portions of the plant, unripe fruit, and especially the rhizome contain the non-alkaloid toxin podophyllotoxin, which causes diarrhea, severe digestive upset.
- **Poison hemlock –** see ***Conium maculatum***.
- **Poison ivy –** see ***Toxicodendron***.
- **Poison oak –** see ***Toxicodendron***.
- **Poison parsnip –** see ***Cicuta***.
- **Poison sumac –** see ***Toxicodendron***.
- **Poison ryegrass –** see ***Lolium temulentum***.
- **Pokeweed –** see ***Phytolacca***.
- **Precatory bean –** see ***Abrus precatorius***.
- **Privet –** see ***Ligustrum***.
- ***Pteridium aquilinum*** (commonly known as **bracken**). Carcinogenic to humans and animals such as mice, rats, horses and cattle when ingested. The carcinogenic compound is ptaquiloside or PTQ, which can leach from the plant into the water supply, which may explain an increase in the incidence of gastric and oesophageal cancers in humans in bracken-rich areas.
- ***Quercus*** (several species, commonly known as **oak**)). The leaves and acorns of oak species are poisonous in large amounts to humans and livestock, including cattle, horses, sheep and goats, but not pigs. Poisoning is caused by the toxin tannic acid, which causes gastroenteritis, heart trouble, contact dermatitis and kidney damage. Symptoms of poisoning include lack of appetite, depression, constipation, diarrhea (which may contain blood), blood in urine, and colic. Rarely fatal however, and in fact after proper processing acorns are consumed as a staple in many parts of the world.
- **Ragwort –** see ***Jacobaea vulgaris***.
- **Redoul –** see ***Coriaria myrtifolia***.
- ***Rhododendron*** (certain species commonly known as **Azaleas**). All parts are poisonous and cause nausea, vomiting, depression, breathing difficulties, coma. Rarely fatal.
- ***Rhus lancia*** (commonly known as **African sumac**). Closely related to poison ivy, all parts of this tree contain low levels of a highly irritating oil with urushiol. Skin reactions can include blisters and rashes. It spreads readily to clothes and back again, and has a very long life. Infections can follow scratching. As urushiol is not a poison but an allergen, it will not affect certain people. The smoke of burning *Rhus lancia* can cause reactions in the lungs, and can be fatal.
- ***Ricinus communis*** (commonly known as **castor oil plant** or **Palma Christi**). The seeds contain ricin, an extremely toxic water-soluble protein. Also present are ricinine, an alkaloid, and an irritant oil. According to the 2007 edition of the Guinness Book of World Records, this plant is the most poisonous in the world. Castor oil, long used as a laxative, muscle rub, and in cosmetics, is made from the seeds, but the ricin is removed during processing. The lethal dose in adults is considered to be 4 to 8 seeds, but reports of actual poisoning are relatively rare.[24] If ingested, symptoms may be delayed by up to 36 hours but commonly begin within 2–4 hours. These include a burning sensation in mouth and throat, abdominal pain, purging and bloody diarrhea. Within several days there is severe dehydration, a drop in blood pressure and a decrease in urine. Unless treated, death can be expected to occur within 3–5 days; if victims have not succumbed after this time, they often recover.[25] In 1978, ricin was used to assassinate Georgi Markov, a Bulgarian dissident. He was stabbed with the point of an umbrella while waiting at a bus stop near Waterloo Station in London. After his death a perforated metallic pellet was

found embedded in his leg; this had presumably contained the ricin toxin. Toxicity varies among animal species: 4 seeds will kill a rabbit, 5 a sheep, 6 an ox or horse, 7 a pig, and 11 a dog. Poisoning occurs when animals ingest broken seeds or break the seed by chewing; intact seeds may pass through the digestive tract without releasing the toxin. Ducks have shown substantial resistance to the seeds: it takes an average of 80 to kill them.

- **River poison tree –** see ***Excoecaria agallocha***.
- ***Robinia*** (also known as **black locust** and **false acacia etc.**). All species produce toxic lectins.[26] The poison is a complex mix of lectins with the highest concentration in the fruit and seed, followed by the root bark and the flower. There is little poison in the leaf.[27] The lectins, generally called **robin** are less toxic than those of e.g. *Abrus* (abrin) or *Ricinus* (ricin), and in non-fatal cases the toxic effects tend to be temporary.
- **Rosary pea –** see ***Abrus precatorius***.
- ***Sambucus*** (commonly known as **elder** or **elderberry**). The roots are considered poisonous and cause nausea and digestive upset.
- ***Sanguinaria canadensis*** (commonly known as **bloodroot**). The rhizome contains morphine-like benzylisoquinoline alkaloids, primarily the toxin sanguinarine. Sanguinarine kills animal cells by blocking the action of Na^+/K^+-ATPase transmembrane proteins. As a result, applying *S. canadensis* to the skin may destroy tissue and lead to the formation of a large scab, called an eschar. Although applying escharotic agents, including *S. canadensis*, to the skin is sometimes suggested as a home treatment for skin cancer, these attempts can be severely disfiguring,[28] as well as unsuccessful. Case reports have shown that in such instances tumor has recurred and/or metastasized. The United States Food and Drug Administration (FDA) has approved the inclusion of sanguinarine in toothpastes as an antibacterial or anti-plaque agent,[29] although it is believed that this use may cause leukoplakia, a premalignant oral lesion.[30] The safe level of sanguinarine in such products is subject to regulation and debate.[31][32] *S. canadensis* extracts have also been promoted by some supplement companies as a treatment or cure for cancer, but the FDA has listed some of these products among its "187 Fake Cancer 'Cures' Consumers Should Avoid". Bloodroot is a popular red natural dye used by Native American artists, especially among southeastern rivercane basketmakers.[33] However in spite of supposed curative properties and historical use by Native Americans as an emetic, due to its toxicity internal use is not advisable (sanguinarine has an LD_{50} of only 18 mg per kg body weight).
- ***Solanum dulcamara*** (commonly known as **bittersweet nightshade**). All parts are poisonous, containing solanine and causing fatigue, paralysis, convulsions, and diarrhea. Rarely fatal.
- ***Solanum nigrum*** (commonly known as **black nightshade**). All parts of the plant except the *ripe* fruit contain the toxic glycoalkaloid solanine. Solanine poisoning is primarily displayed by gastrointestinal and neurological disorders. Symptoms include nausea, diarrhea, vomiting, stomach cramps, burning of the throat, cardiac dysrhythmia, headache and dizziness. In more severe cases, hallucinations, loss of sensation, paralysis, fever, jaundice, dilated pupils and hypothermia can result. In large quantities, solanine poisoning can be fatal.
- ***Solanum pseudocapsicum*** (commonly known as **Jerusalem cherry**, **Madiera winter cherry** and **winter cherry**). All parts, especially the berries, are poisonous, causing nausea and vomiting. It is occasionally fatal, especially to children.
- ***Sosnowsky's Hogweed***. Plant has toxic sap and causes skin inflammation on contact.
- **Spindle tree** or **spindle –** see ***Euonymus europaeus***.
- **Starch-root –** see ***Arum maculatum***.
- ***Stenanthium* –** see **Deathcamas**.
- **Stinging tree –** see ***Dendrocnide moroides***.
- **Stinkweed –** see ***Datura stramonium*** and ***Datura***.
- **Strychnine tree –** see ***Strychnos nux-vomica***.
- ***Strychnos nux-vomica*** (commonly known as the **strychnine tree**). The seeds usually contain about 1.5% strychnine, an extremely bitter and deadly alkaloid. This substance throws a human into intense muscle convulsions and usually kills within three hours. The bark of the tree may also contain brucine, another dangerous

chemical.

- **Suicide tree –** see ***Cerbera odollam***.
- ***Taxus baccata*** (commonly known as **English yew**, *common yew* ***and*** **'graveyard tree**). Nearly all parts contain toxic taxanes (except the red, fleshy, and slightly sweet aril surrounding the toxic seeds). The seeds themselves are particularly toxic if chewed. Several people have committed suicide by ingesting leaves and seeds, including Catuvolcus, king of a tribe in what is now Belgium.
- **Thorn apple –** see ***Datura stramonium*** and ***Datura***.
- ***Toxicodendron*** Several species, including ***Toxicodendron radicans*** (commonly known as **poison ivy**), ***Toxicodendron diversilobum*** (commonly known as **poison-oak**), and ***Toxicodendron vernix*** (commonly known as **poison sumac**). All parts of these plants contain a highly irritating oil with urushiol. Skin reactions can include blisters and rashes. It spreads readily to clothes and back again, and has a very long life. Infections can follow scratching. Despite the common names, urushiol is actually not a poison but an allergen, and because of this it will not affect certain people. The smoke of burning poison ivy can cause reactions in the lungs, and can be fatal.
- ***Toxicoscordion –*** see **Deathcamas**.
- ***Urtica ferox*** (commonly known as **ongaonga**). Even the lightest touch can result in a painful sting that lasts several days.
- ***Veratrum*** (commonly known as **false hellebore** and **corn lily**). Several species, containing highly toxic steroidal alkaloids (e.g. veratridine) that activate sodium ion channels and cause rapid cardiac failure and death if ingested. All parts of the plant are poisonous, with the root and rhizomes being the most toxic. Symptoms typically occur between 30 minutes and 4 hours after ingestion and include nausea and vomiting, abdominal pain, numbness, headache, sweating, muscle weakness, bradycardia, hypotension, cardiac arrhythmia, and seizures. Treatment for poisoning includes gastrointestinal decontamination with activated charcoal followed by supportive care including fluid replacement, antiemetics for persistent nausea and vomiting, atropine for treatment of bradycardia, and vasopressors for the treatment of hypotension. Native Americans used the juice pressed from the roots to poison arrows before combat. The dried powdered root of this plant was also used as an insecticide.[34] The plants' teratogenic properties and ability to induce severe birth defects were well known to Native Americans, although they also used minute amounts of the winter-harvested root (combined with *Salvia dorii* to potentiate its effects and reduce the toxicity of the herb) to treat cancerous tumors. The toxic steroidal alkaloids are produced only when the plants are in active growth, so herbalists and Native Americans who used this plant for medicinal purposes harvested the roots during the winter months when the levels of toxic constituents were at their lowest. The roots of *V. nigrum* and *V. schindleri* have been used in Chinese herbalism (where plants of this genus are known as "li lu" (藜蘆). Li lu is used internally as a powerful emetic of last resort, and topically to kill external parasites, treat tinea and scabies, and stop itching.[35] However some herbalists refuse to prescribe li lu internally, citing the extreme difficulty in preparing a safe and effective dosage, and that death has occurred at a dosage of 0.6 grams. During the 1930s *Veratrum* extracts were investigated in the treatment of high blood pressure in humans. However patients often suffered side effects due to the narrow therapeutic index of these products. Due to its toxicity, the use of *Veratrum* as a treatment for high blood pressure in humans was discontinued.
- **Wake robin –** see ***Arum maculatum***.
- **Water hemlock –** see ***Cicuta***.
- **White baneberry –** see ***Actaea pachypoda***.
- **White snakeroot –** see ***Ageratina altissima***.
- **Wild arum –** see ***Arum maculatum***.
- **Winter cherry –** see ***Solanum pseudocapsicum***.
- **Wolfsbane –** see ***Aconitum***.
- ***Xanthium*** (commonly known as **cocklebur**). Several species. The Common Cocklebur (*X. strumarium*), a native of North America, can be poisonous to livestock, including horses, cattle, and sheep. Some domestic animals will avoid consuming the plant if other forage is present, but less discriminating animals, such as pigs, will consume

the plants and then sicken and die. The seedlings and seeds are the most toxic parts of the plants. Symptoms usually occur within a few hours, producing unsteadiness and weakness, depression, nausea and vomiting, twisting of the neck muscles, rapid and weak pulse, difficulty breathing, and eventually death. *Xanthium* has also been used for its medicinal properties and for making yellow dye, as indicated by its name (Greek *xanthos* = 'yellow').

- **Yellow jessamine** – see ***Gelsemium sempervirens***.
- **Yew** – see ***Taxus baccata***.
- ***Zantedeschia*** (several species, also known as **Lily of the Nile** and **Calla lily**). Contain calcium oxalate. All parts of the plant are toxic, producing irritation and swelling of the mouth and throat, acute vomiting and diarrhoea. Can be fatal.
- ***Zigadenus*** – see **Deathcamas**.

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External links

- Herbarium of toxic plants (http://herbarium.freehostia.com/)
- US Army: Guide to poisonous and toxic plants (http://chppm-www.apgea.army.mil/ento/PLANT.HTM)
- Cornell University Poisonous Plants Information Database (http://www.ansci.cornell.edu/plants/)

This list is incomplete; you can help by expanding it (http:/ / en. wikipedia. org/ w/ index. php?title=List_of_poisonous_plants&action=edit).

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