



PERIWINKLE, Ram Goat Rose
Catharanthus roseus (L.) G. Don

Apocynaceae

Description

Short lived herb growing to 60 cm. in height with leaves in opposite pairs. The broken stem has a viscid sap. Flowers tubular with lobes white with yellow or crimson eye; pink with crimson eye.

Location

Common weed found throughout the tropics and subtropics. Used sometimes in gardens in Jamaica.

Uses

Folk cure or control of diabetes when taken as a tea. Leaves when tested did not prove to control diabetes, but produced vincristine and vinblastine useful for treating leukaemia.

Toxic Effects

All parts of the plant contain several active alkaloids of the indole type, especially its root bark. Acute poisoning results in seizures and inflammation of the eyes, nose and mouth.

Antidote

Sedatives useful. Activated charcoal and quick acting purgatives for example Epsom salts should be administered.



CASSAVA, Tapioca
Manihot esculenta Crantz

Euphorbiaceae

Description

Shrubby perennial plant with stems which has a viscous sap. Leaves are long and divided similar to the palm. Flowers are both male and female and greenish to purple in colour. The fruit is a capsule. The roots are tuberous and starchy. Bitter and sweet varieties are known

Location

Widely cultivated throughout the Caribbean and the tropics. Varietal properties may be affected by environmental conditions.

Uses

The tubular roots are widely used as a vegetable. The bitter variety is used in Jamaica to make “bammies” The poison must be carefully removed by grating, pressure and heat to be made safe and the residue safely disposed.

Toxic Effects

The tubers of the both varieties, contains cyanogens, for example, Linamarin, lotaustralin, amygdalin in different proportions. Prussic acid poisoning by inhalation, ingestion, and other means (eye, skin), can result which causes drowsiness then coma, convulsions, shock, respiratory failure and death

Antidote

Use of 25% sodium thiosulphate solution to neutralise the cyanide, 100% oxygen and activated charcoal will absorb the cyanide.



DUMBCANE, Money Plant
Dieffenbachia seguine (Jacq.) Schott

Araceae

Description

Shoots are not woody up to 1 metre high and usually creeps for short distances the ascend. Berries are orange or red. There are many horticultural varieties.

Location

It is cultivated and is naturalised around pond margins, in ditches and wet pastures. It is widely distributed throughout tropical America.

Toxic Effects

Dumb cane contains oxalic acid. The juice from the leaves or stem is irritating to the mucous membrane. Contact with the eye or tongue results in pain, swelling and inflammation that takes days or weeks to subside and if sufficiently serious result in death.

Antidotes

Lime juice is used as a quick relief from the oral swelling. Antihistamines, local analgesics and cool beverages provide adequate relief. Severe cases may need hospitalization to assist in breathing



OLEANDER

Nerium oleander

Apocynaceae

Description

A shrub with several long erect stems, narrow dark green pointed leaves with whorls and a milky sap. Flowers are normally pink, but white and yellow varieties exist.

Location

Common ornamental plant grown in tropical and subtropical countries.

Toxic Effects

All parts of the plant are poisonous as it contains cardiac glycosides similar to those in digitalis spp. The garden plant Frangipani (*Plumeria rubra*) also contains cardiac glycosides. Irregular pulse rate, abdominal cramps with vomiting and diarrhoea (sometimes bloody), dilated pupils, dizziness, headache, fatigue, drowsiness and blurred vision may result from this plant. Peri-oral flush, convulsions, coma and death may occur.

Treatment

Induction of vomiting, purgatives such as Epsom salts; slurry of activated charcoal are effective. Hospitalization and intravenous solution of Digibind (digoxin specific Fab antibody fragments). Treatment with propranolol and atropine is also effective in relieving the cardiac symptoms.



COWITCH

Mucuna pruriens (L.) DC.

Papilionaceae

Description

Wide spreading, twining vine with leaves that have three leaflets up to 15 cm long and are hairy underneath. The flowers are deep purple (rarely yellow) in clusters on a long stalk. Pods are formed bunched together and when mature are covered by brown pungent hairs.

Location

This plant is found in the tropics and it is common in thickets and woodland areas in Jamaica.

Toxic Effects

The active substances in this plant include a proteolytic enzyme (mucunain) and a hydroxytryptamine in the hairs that causes itching; serotonin that produces pain; several alkaloids including nicotine. Additionally, aflatoxin contamination may be found in the seeds.

Antidote

Rinse off hairs that may be adhering to the skin and soothe with antihistamine creams or ointments. Drinking Epsom salts will assist in quick expulsion of ingested toxins from the gut.



ACKEE

Blighia sapida Konig

Sapindaceae

Description

A tall tree with spreading branches and a slightly rough lightly coloured bark with black shading. The leaves are compound with 3 to 5 pairs of shiny leaflets. Flowers are sweet scented, small creamy white. The fruit is a fleshy capsule, red when ripe, splitting to expose three black shiny seeds with the base embedded in a cream coloured fleshy aril. There are several known varieties.

Location

Naturalized and cultivated in Jamaica, originally from West Africa. The plant is found in other tropical and subtropical countries including other islands of the Caribbean.

Uses

Used in West Africa as a fish poison and in making soap. Popular food in Jamaica when the fully opened fruit is cooked and combined with salted cod fish “ackee and salt fish”

Toxic Effects

The immature fruit is responsible for Jamaican “vomiting sickness.” The hypoglycaemic substance hypoglycin, an unusual amino acid is present in the arillus of the unripe fruit and causes lowering of blood sugar and depleting glycogen reserves. Brain and liver damage may result, even death. The ripe fruit only has a small amount of hypoglycin, which when boiled is discarded with the pot water. Persons who are malnourished are more susceptible to its effects especially if they are riboflavin deficient. The seeds also contain hypoglycin.

Antidote

Sweet sugar solution; fluid replacement and activated charcoal



CASTOR OIL

Ricinus communis L.

Euphorbiaceae

Description

A robust shrub or small tree with large peltate leaves divided into toothed lobes. Male and female flowers are without petals and are borne separately on the same plant. The flowers have yellow stamens with multibranched filaments and a forked, reddish style. The capsule is shiny, splitting into three segments each with a single seed. The seeds are mottled. There are many varieties.

Location

The plant is widespread in Jamaica and the West Indies also the tropics in general.

Uses

The oil has been used as a laxative and as a component of lubricating oils.

Toxic Effects

The seed contains a poisonous protein, ricin, which is residual when the oil is expressed. It inhibits protein synthesis in the gut wall producing gastrointestinal upset. Roasting reduces toxicity. Ricin is useful in preparation of immunotoxins for treating tumours.

Antidotes

Activated charcoal absorbs the toxin. Potassium permanganate or sodium sulphate solution neutralizes the toxicity. Papain activated with hydrogen sulphide destroys unabsorbed lectins.



NUTMEG, mace
Myristica fragrans



Myristica

Description

Products of an evergreen tree, which does not flower until after 9 years, when it bears fruit. This tree bears 2 to 3 crops per year and can continue to do this for a further 75 years. The fruit resembles apricots or peaches. When ripe, the husk splits open and a single brown nut (nutmeg) is revealed, enclosed by a scarlet netlike aril, which when dried (a process which takes 3 to 6 weeks) is ready for use. The dried fruit is called mace.

Location

Indigenous to the Spice Islands and cultivated in the Caribbean

Uses

Used to treat dyspepsia, muscle-skeletal disorders and arthritis. Psychiatric condition and narcosis have also been treated with “nutmeg.” Ingestion of nutmeg has produced euphoria among prisoners, college students and adolescents.

Toxic Effects

The seed and seed case contain terpenes, myristicin, elemicin and other ingredients. Produces excited feelings and hallucinations. A period of drowsiness, delirium and possibly unconsciousness follows.

Antidote

Garlic lavage and cathartics are beneficial during the first few hours. Milk or a demulcent may be given to alleviate gastric irritation. Oxygen for vertigo; barbiturates or diazepam for convulsions; and chlorpromazine for severe agitation. A liquid diet high in protein and carbohydrates and low in fat is recommended. Wash eye if contaminated by powder.



Neem, China Berry, Persian Lilac
Melia azedarach L. Meliaceae

Description

This is a small tree about 2.6m in height and has slender branches. The leaves are compound with lanceolate leaflets. It bears lilac inflorescences flowers that develops into drupes about 1.5cm long and are yellow when ripe.

Location

This plant is quite common in Jamaica and is found both in gardens and in the wild. It is also found in other tropical countries.

Uses

The neem plant has been investigated and has been found to have a number of important uses. It is used for digestive disorders, skin disease, diabetes, gum diseases, and has also been found to have antifungal, anti-viral and anti-malarial properties.

Toxic Effect

A variety grown in Australia has been shown to contain harmful toxins in the fruit that cause acute nervous symptoms and death in pigs.

Antidote

Activated charcoal is given for ingestion.



French Cotton, Dumb Cotton
Calotropis procera

Asclepiadaceae

Description

This plant is a small shrub with a milky sap. It has soft leaves that occur as pairs alternating at the stalk. Its flowers are part white and part purple and occur as clusters on the stalk.

Location

This plant is common in Jamaica and many other Caribbean countries.

Uses

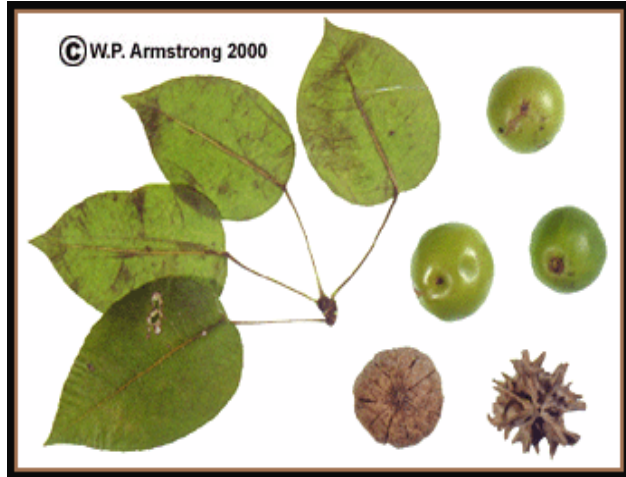
It is used in folk medicine and has been found to have some insecticide properties.

Toxic Effect

The latex of this plant is poisonous and is associated with steroidal cardiac toxins.

Antidote

Activated charcoal is given for ingestion.



Manchineel

Hippomane mancinella L.

Euphorbiaceae

Description

This is a tree, which contains a lot of sap, about 4-20m high with a 12-20cm thick trunk. Its leaves are dark green and are about 2.5-12cm in length. It bears a light yellow-green fruit that are spherical.

Location

It is found close to the coastline especially in the south-eastern parishes of Jamaica and other Caribbean countries.

Toxic Effects

This is a very toxic plant. It can cause death if a significant amount of the fruit is eaten. The sap has been found to damage the eyes and is corrosive to the skin. When ingested or chewed this plant causes swollen lips, abdominal pain, vomiting and bleeding of the gut.

Antidotes

The extracts of the following plants has been used as antidotes:

Belly-ache bush (*Jatropha gossypifolium*)

White Cedar (*Brignonia leucoxylon*)

Arrowroot