

A Review: A Study on Poisonous Plants Present in Maharashtra

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Abstract: The review of poisonous plants belonging to various families from Maharashtra state was undertaken. The present paper deals with the toxic range, poisonous parts and the identification of the toxic chemical constituents available in these plants. Based on the available literature on clinical symptoms and the traditional information gathered from the local people.

Key Words: Poisonous plant, Maharashtra, Phytoconstituents.

1. INTRODUCTION:

Ever since humans have existed, they have investigated and taken advantage of plants to meet a variety of basic needs. The indigenous population has employed plants as a primary source of many types of rudimentary medicine since the dawn of civilization, in addition to providing food, clothing, and shelter. The ancient humans used rudimentary methods to extract several chemical compounds, including were applied to treat a variety of illnesses. Modern herbal medicines are derived from several sections of the plants are frequently utilised to cure a wide range of illnesses. Only the pharmaceutical industry is relied on a variety of chemical elements supplied from plants. Some of these plants have occasionally proved poisonous for humans and their domesticated animals, and this has been seen. Additionally, it was discovered that they were to blame for the demise of humans and other consumer animals. Poisonous plants are those that, under all or specific conditions, are whole plants or parts of them that, when consumed or in contact with an organism in any way, cause harm or even death, either immediately or over time due to the cumulative action of the toxic property caused by the presence of known or unidentified chemical substances in them, rather than mechanical action.

Table 1: List of poisonous plants present in Maharashtra along with Botanical Name, Local Name, Family, Poisonous part, Family, Phytochemicals.

Sr.no.	Botanical Name	Local Name	Family	Poisonous Part	Phytochemicals
1	Ricinus Communis	Castor oil	Eyphorbiaceae	Seed oil	Ricinoleic acid, oleic acid, Ricin, Palmitic acid
2	Semecarpusanacardium	Phobinut tree, Varnishunt tree	Anacardiaceae	Seed, Fruit	Biflavonoids
3	Calotropis	Milk Weeds	Apocynaceae	Stem, Root	Cardenolides, Steroids, Tannins, Phenols

4	Capsicum Annum	Bell Pepper, Red Pepper	Solanaceae	Leaves, Stem	Capsaicin, Capstate, Dihydrocapsaicin
5	Opium	Papaversomniferum	Papaveraceae	Dried latex	Morphine, Codeine, Thebaine
6	Dhatura	Jimson weed	Solanaceae	Seeds, leaves	Tropane alkaloids, Flavonoids, Tannis
7	Cannabis Sativa	Gallow Grass	Cannabaceae	Brown resins, fruit, seed	Cannabinoids, Cannabin oil, Cannabigerol
8	Cocaine	Coke, Blow, Crack	Erythroxyllaceae	Leaves	Cocaine, Ecgonine
9	Strychnine	Nux-vomica	Loganiaceae	Seeds	Strychnine, Brucine
10	Conium	Hemlock	Apiaceae	Root, Fruits	Piperidine, Coumarins
11	Digitalis	Foxglove	Digitalidaceae	Root	Digitoxin, Gitoxin
12	Nicotine	Tabacco, Butts	Nicotiana	Leaves	Pyridine, Pyrrolidine
13	Aconite	Monkshood, Mousebane	Ranunculaceae	Roots	Aconitine, Hypaconitine
14	Oleander	Nerium	Apocynaceae	Flowers, Leaves, Stems	Gitoxigenin, Neridiginoside
15	Drimiaindica	Janglikanda	Utricaceae	Bulbs	Salicylic acid, Campesterol
16	Lantena Camera	Haldi-Kunku	Verbaniaceae	Leaves	Cadinenes, Elemene, Capaene
17	Balaniteaegyptiaca	Jamalgota	Balanitaceae	Bark, Seeds	Protin, lipid, carbohydrate, Alkaloid
18	Crinum Viviparum	Kardali	Amarylidaceae	Tuber	Alkaloids, Tannis, Flavonoids
19	Citrulluscolocynthis	Indrayani	Cucurbitaceae	Fruits	Oil, Protein, Carbohydrate
20	Gloriosasuperbanus	Kardali	Liliaceae	Tuber, Root	Cornigerine, Demethyl, Colchicines
21	Hibiscus Cannabinus	Ambadi	Malavaceae	Fruit stellate hairs	Campesterol, B-sitosterol

22	Lathyrus sativus	Lakh	Papilionaceae	Seeds	Legymelin, Gumresin, Alkaloids
23	Leucaena leucocephala	Subabul	Mimosidae	Leaves, Fruits	Phytol, Teramethylhexadecen squalene
24	Mucuna pruriens	Khaj-Khujili	Papilionaceae	Fruits	Lignin, Starch, fats, tannins
25	Moringa oleifera	Mugna	Moringaceae	Root, Bark	Kaempferol, phenol, isothiocyanate

2. SUMMARY AND CONCLUSION:

The present work describes the phytochemical constituents of the plants which are harmful to humans and animals. These plants have secondary metabolites present in different parts of the plant such as root, stem, fruits, seeds, leaves. These plant parts contain poisonous plants for causing various diseases to humans and animals. These plants have secondary metabolites such as alkaloids, flavonoids, glycosides, tannins, carbohydrates, phenols, flavonoids and anthocyanin, chlorogenic acid, salicylic acid, stearic acid, steroids, anthraquinone, monoterpenes, sesquiterpenes, aromadendrene, alpha-phellandrene, monoterpenes, sesquiterpenes, aromadendrene, alpha-phellandrene, rhamnoside, chrysophanol, betasitosterol, pyrrolizidine they are synthesized by the plants.

REFERENCES:

1. Text book of Singhal "Toxicology" 9th edition 2016
2. General book of Modern Medical Toxicology by Pillay VV 4th edition.
3. Evaluation of "Agadatantra" forensic medicine and toxicology of Indian system of medicine
4. Angunawela, R.M., Fernando, H.A. 1971, Acute ascending polyneuropathy and dermatitis following poisoning by Tubers of *Gloriosa superba* Ceylon Med. J., 16:233-235.
5. Chopra, R.N., R.L. Badhwar, S. Ghosh, Poisonous plants in India, 1:1965.
6. Davis, J.H., *Abrus precatorius* (rosary pea), The most common lethal plant poison, J. Fla. Med. Assoc., 65:189-191
7. Der Marderosian, A. 1966. Poisonous plants in and around the home. American Journal of Pharmaceutical Education 30(1): 115-140
8. Edward, R.O. 1965, Poisoning from plants ingestion, Journal of the Florida Medical Association 52(12): 875-881
9. Gunn, C.R. 1969. *Abrus precatorius*: a deadly gift. 19:2-5
10. Jelks, Mary. 1986, Allergy plants that causes sneezing and wheezing, World-Wide Printing Tampa, FL.