

# Some Useful Medicinal Plants

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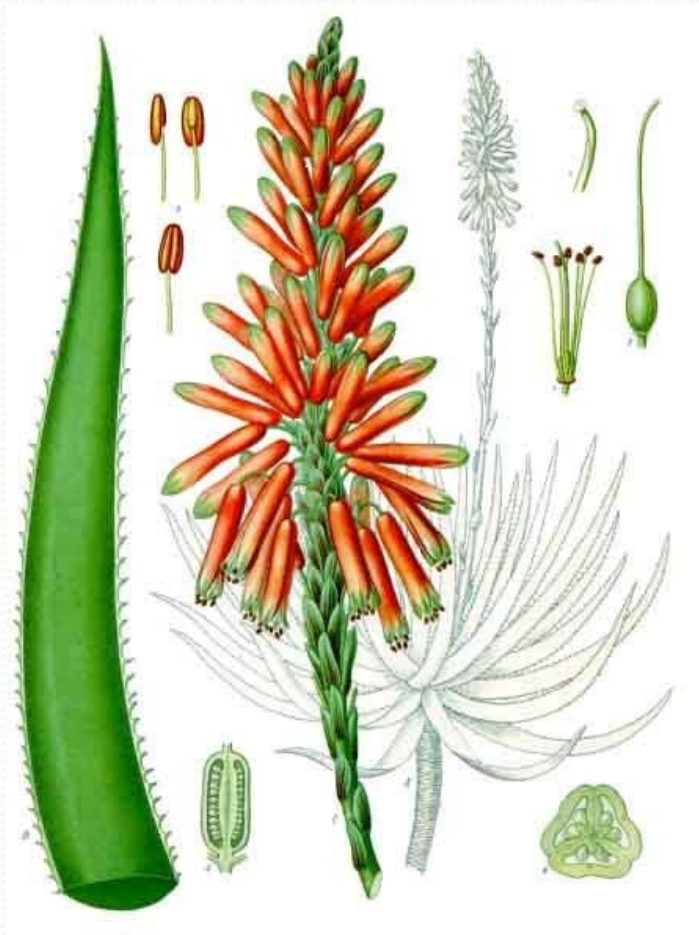
## SOME IMPORTANT MEDICINAL PLANTS

- ❖ *Aloe vera* --- *Aloe*
- ❖ *Azadirachta indica* --- *Margosa Tree*
- ❖ *Curcuma longa* --- *Turmeric*
- ❖ *Rauwolfia serpentina* --- *Sarp Gandha*
- ❖ *Withania somnifera* --- *Aswagandha*

# INTRODUCTION

- Medicinal plants have a history as long as the human civilization. Early Hindu, Chinese, Hebrews and Egyptians have left us many written records of medicinal properties of plants.
- It is indeed a herculean task to list out the medicinal plants, as practically the whole of plant world has some or other medicinal properties.
- There has been a resurgence in the consumption and demand for medicinal plants. These plants are finding use as pharmaceuticals, nutraceuticals, cosmetics and food supplements. Even as traditional source of medicines and they continue to play pivotal rule.

# *Aloe vera* (L.) Burm.f.



## Scientific Classification

- **Kingdom:** Plantae
- **Division:** Angiosperm
- **Class:** Monocotyledons
- **Series:** Coronarieae
- **Family:** Liliaceae
- **Genus:** *Aloe*
- **Species:** *A. vera*



- ***Aloe vera***: It is a stemless or very short-stemmed succulent plant growing to 80-100 cm tall, spreading by offsets and root sprouts. The leaves are lanceolate, thick and fleshy, green to grey-green, with a serrated margin. The flowers are produced on a spike up to 90 cm tall, each flower pendulous, with a yellow tubular corolla 2-3 cm long.

## Parts that can be used

The lower leaf of the plant is used for medicinal purpose. If the lower leaf is sliced open, the gel obtained can be applied on the affected area of the skin. Leaves and seeds are the two edible parts of Aloe Vera **Part Used** : FLOWERS, ROOTS AND LEAF

# Medicinal uses



- *Aloe vera's* beneficial properties may be attributed to mucopolysaccharides present in the inner gel of the leaf, especially acemannan (acetylated mannans). An injectable form of acemannan manufactured as Acemannan Immunostimulant has been approved in the USA for treatment of fibrosarcoma (a type of cancer) in dogs and cats after clinical trials.
- Aloe is used externally to treat a number of skin irritations. It has antiseptic and antibiotic properties which make it highly valuable in treating cuts and abrasions. It has also been commonly used to treat first and second degree burns, as well as sunburns and poison oak, poison ivy, and poison sumac infections, and eczema. It can also be used as a hair styling gel and works especially well for curly or fuzzy hair.



# Medicinal Uses of Kumari



- Leaf Pulp – Liver disorders, Rheumatism, Skin disorders, Intestinal worms.
- Leaves Juice – It is Cathartic and Cooling, Eye troubles and Spleen.
- It is useful for X ray burns, Dermatitis, Cutaneous and disorders of skin. Drug from juice is tonic and is used in jaundice, ameneorrhoea, atonic and piles. Aloe Vera Gel has the remarkable ability to heal wounds, ulcer and burns.

# *Azadirachta indica* A. Juss.



## Scientific Classification

- **Kingdom:** Plantae
- **Division:** Angiosperm
- **Class:** Dicotyledons
- **Sub class:** Polypetalae
- **Series:** Disciflorae
- **Order:** Geraniales
- **Family:** Meliaceae
- **Genus:** *Azadirachta*
- **Spices:** *A. indica*



- **Neem** (*Azadirachta indica*) is a tree in the mahogany family Meliaceae. Neem is a fast-growing tree that can reach a height of 15-20 m, rarely to 35-40 m. Bark is brown with vertical furrows.
- The leaves are alternate, pinnate 20-40 cm long, with 20-31 medium to dark green leaflets about 3-8 cm long. The petioles are short.
- Flowers white in axillary panicles. Fruit one-seeded drupe, yellow when ripe, seed ellipsoid, cotyledon thick, fleshy and oily.



# Parts that can be used


- All parts of the tree (seeds, leaves, flowers and bark) are used for preparing many different medical preparation.

## USES

- Products made from *neem* have proven medicinal properties, being anthelmintic, antifungal, antidiabetic, antibacterial, antiviral and anti-infertility. It is considered a major component in Ayurveda (Devanagari: आयुर्वेद ) and is particularly prescribed for skin disease.
- Neem twigs are used for brushing teeth.





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- Neem Oil is useful for skin care such as acne, and keeping skin elasticity and for preparing cosmetics (soap, shampoo, balms and creams).
  - Neem Gum is used as a bulking agent and for the preparation of special purpose food (those for diabetics)
  - Vermifuge, Insecticide, Astringent, Tonic and Antiseptic. It possesses anti diabetic, anti bacterial and anti viral properties and used successfully in cases of stomach, worms and ulcers.
  - Root bark possesses astringent, tonic and anti-periodic properties. It is also useful in Malarial fever.
  - Horticultural usages:** Neem is a source of environment-friendly biopesticides. Among the isolated neem constituents, limonoids (such as Azadirachtin) are effective in insect growth-regulating activity.



# *Curcuma longa* L.



- **Scientific Classification**
- **Kingdom:** Plantae
- **Division:** Angiosperm
- **Class:** Monocotyledons
- **Series:** Epigynae
- **Order:** Scitamineaceae
- **Family:** Zingiberaceae
- **Genus:** *Curcuma*
- **Species:** *C. longa*

# Turmeric



- *Curcuma longa* is a rhizomatous herbaceous perennial plant of the ginger family, Zingiberaceae which is native to tropical South Asia. It needs temperatures between 20 and 30<sup>0</sup>C. and a considerable amount of annual rainfall to thrive. Plants are gathered annually for their rhizomes, and re-seeded from some of those rhizomes in the following season.
- **Parts that can be used: Rhizomes**





# Turmeric



- **Medicine:** In the Ayurvedic medicine, turmeric is thought to have many medicinal properties and many in India use it as a readily available antiseptic for cuts and burns.
- Ayurvedic doctors say it has fluoride which is thought to be essential for teeth.
- It is also used as an antibacterial and anti-inflammatory agent.
- It is taken in some stomach problems and other ailments.
- Curcumin is thought to be a powerful antinociceptive (pain-relieving) agent.
- It is popular as a tea in Okinawa, Japan. It is currently being investigated for possible benefits in Alzheimer's disease, cancer and liver disorders.



# Haldi



- **Food:** Turmeric has found application in canned beverages, baked products, dairy products, ice cream, yogurt, yellow cakes, biscuits, popcorn-color, sweets, cake icings, cereals, sauces, gelatins, etc. It is a significant ingredient in most commercial curry powders.
- **Dye:** Turmeric makes a poor fabric dye as it is not very lightfast (the degree to which a dye resists fading due to light exposure).

# *Rauvolfia serpentina* (L.) Benth.ex Kurz.



## Scientific Classification

- **Kingdom:** Plantae
- **Division:** Angiosperm
- **Class:** Dicotyledons
- **Sub Class:** Gemopetalae
- **Series:** Superae
- **Order:** Gentianales
- **Family:** Apocynaceae
- **Genus:** *Rauwolfia*
- **Species:** *R. serpentina*



# *Rauwolfia serpentina*



- *Rauwolfia serpentina* is an erect, evergreen shrub, merely 15 to 45 cm high.
- Its leaves are large, in whorls of three - dark green above and pale green below.
- The flowers are white, pinkish or red, occurring in whorls.
- Its fruit are tiny, oval, fleshy which turn a shiny purple-black when ripe. It is the roots of the plant that are mainly used for medicinal purposes.



# Sarp Gandha



- Parts that can be used - Root
- Indian Snakeroot or *Sarpagandha*, contains a number of bioactive chemicals, including ajmalicine, deserpidine, rescinnamine, serpentinine, and yohimbine.
- Reserpine is an alkaloid first isolated from *R. serpentina* which was widely used as an antihypertensive drug. It had drastic psychological side effects and has been now replaced by blood-pressure-lowering drugs that lack such adverse effects.

# *Withania somnifera* (L.) Dunal



- **Scientific classification**
- **Kingdom:** Plantae
- **Division:** Angiosperm
- **Class:** Dicotyledon
- **Subclass:** Gamopetalae
- **Order:** Polemoniales
- **Family:** Solanaceae
- **Genus:** *Withania*
- **Species:** ***W. somnifera***



# Aswagandha

- **Ashwagandha** (*Withania somnifera*), also known as **Indian ginseng**, **Winter cherry**, **Ajagandha**, **Kanaje Hindi** and **Samm Al Ferakh**, is a plant in *Solanaceae* or nightshade family.
- Ashwagandha grows as a stout shrub that reaches a height of 170cm. It bears yellow flowers and red fruit, though its fruit is berry-like in size and shape.
- It is commercially cultivated in Madhy Pradesh state of India.

# Ahwagandha...contd

**Parts that can be used – Root, Leaves & Fruits**

**Medicinal Uses:** Ashwagandha has been used for strengthening the body and for helping to prevent disease.

- It is Tonic, Abortifacient, Astringent, Deobstruent, Nervine, Aphrodisiac and Sedative.
- It is official Indian Pharmacopoeia. It is popularly known as Indian Ginseng.
- It gives vitality and vigour and helps in building greater endurance. It has been used in diseases such as rheumatism, leprosy and arthritis.



# Recommendations

- Some herbal / diet supplement products have been found to contain possibly harmful impurities /additives.
- Before using any herbal product, ask your doctor or pharmacist of all prescription and nonprescription medications you may use.

# References

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