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Article:

MURRAYA KOENIGII (L): A MULTIPOTENTIAL MEDICINAL PLANTS

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INTRODUCTION:

Murraya koenigii (L) Spreng. is an tropical and subtropical tree commonly known as curry leaf or curry neem is an important Indian culinary medicinal plant with high aroma belonging to the family Rutaceae. It represents more than 150 genera and 1600 species **(Jain et al., 2012).** It is more or less deciduous shrub or small tree upto a height of 6 meters in Himalayan region and 15-40 cm in diameter. The main stem is dark green to brownish in colour with numerous dots on it; its bark can be peeled off longitudinally, exposing the white wood underneath. Leaves are alternate, exstipulate, bipinnately compound, 30 cm long, each bearing 24 leaflets, having reticulate venation. Flowers, bisexual, white, funnel-shaped, sweetly scented, stalked the average diameter of a fully opened flower being 1.12 cm. Fully ripe fruits are black in colour which is round to oblong, 1.4 to 1.6 cm long, 1 to 1.2 cm in diameter; weight, 880 mg; volume, 895 micro litres. The individual seed is 11 mm long, 8 mm in diameter **(Singh *et al.*, 2014).**
It grows wild and is found almost throughout India up to heights of 1500 to 1655 m *Murraya koenigii* is a native of India, Sri Lanka and other south Asian countries. *Murraya koenigii* is distributed throughout India and is abundantly found from Sikkim to Garhwal, Bengal, Assam, Western Ghats and Kerala. It reached to Malaysia, South Africa and Reunion Island from India along with South Indian immigrants (Gahlawat *el al*., 2014).
Flowering starts from the middle of April and ends in the middle of May. The fruiting season start from the middle of July to the end of August **(Singh *et al.*, 2014).** It reproduces the means of seeds which germinate freely under partial shade. Propagation by stem cuttings and air layering is

also possible. Curry leaf is a hardy crop. It can be tolerate higher temperature but when the temperature falls down below 16^0C the vegetative buds become dominant arresting new growth of the plant. The crop is more dominant at an altitude range of 60-1200m above MSL through it can be cultivated upto a height of 1800m above MSL. Curry leaf can establish very well in red sandy loam with good drainage facilities. Heavy clay with poor drainage is not suitable for cultivation of curry leaf. Leaves are a fair source of Vitamin A, Vitamin C calcium, protein, carbohydrate. The peculiar aroma is due to the presence of sulphur containing essential oil. The most important chemical constitutents responsible for its intense characteristic aroma are P- gurjunene, P-caryophyllene, P-elemene and O-phellandrene.

Plant Profile:

Kingdom : Plantae
Sub-kingdom : Tracheobionta
Super division: Spermatophyta
Division : Magnoliophyta
Class : Magnoliospida
Subclass : Rosidae
Order : Sapindales
Family : Rutaceae
Genus : *Murraya J.Koenig ex L.*
Species :*Murraya Koenigii L. Spreng.*

Herbal and natural products of folk medicine have been used since ancient culture throughout the world. Curry leaf is used in many of the Indian ayurvedic and unani prescriptions **(Singh *et al.*, 2014)** and play a versatile role in traditional medicine **(Satyavati *et al.*, 1987)**. The plant is credited with tonic and stomachic properties. Bark and roots are used as stimulant and externally to cure eruptions and bites of poisonous animals. Green leaves are eaten raw for cure of dysentery, diarrhoea, checking vomiting, hereditary diabetes. Curry leaf juice can be ingested for treatment of renal diseases, or dropped into the eyes for the prevention of cataracts. Leaves and roots are also used traditionally as bitter, anthelmintic, analgesic, curing piles, inflammation, itching and are useful in leucoderma and blood disorders. The leaves can be used to make tea to treat fever. The oil is used externally for bruises, eruption, in soap and perfume industry. Curry leaves are a popular leaf-spice and used in very small quantities for their distinct aroma due to the presence of volatile oil and their ability to improve digestion. Curry leaves are widely used in Indian cookery for flavouring foodstuffs **(Singh *et al.*,**

2014) and it has slightly pungent, bitter and feebly acidic taste, and they retain their flavour and other qualities even after drying.

Active compounds of *Murraya koenigii* and their activities:

Active compounds	Source	Biological activity
Lutein	Leaves	Anti oxoidant
Tocopherol	Leaves	Anti oxoidant
Carotene	Leaves	Anti oxoidant
Koenimbine	Leaves	Anti oxoidant
Isomahanine	Leaves	Anticaries
Mahanine	Stem and bark	Antimicrobial
Murrayanol	Leaves	Mosquitocidal

CONCLUSION:

Murraya koengii is a multipotential medicinal plant and are widely used by the people for medicinal purpose as well as in cookery. Thorough screening of available literature available on *Murraya Koenigii* illustrated the information that it is a popular remedy among the various ethnic groups, Vaidyas, Hakims and ayurvedic practitioners for cure of different ailments. Many ethnic communities claim its importance but very little efforts have been made by the researchers to explore the therapeutic potential of this plant. It is very interesting fact that the leaves of *Murraya Koenigii* is already screened and found to possess different pharmacological activities but till now seeds and other parts of the plant which are already claimed by the people for their ethano-medicinal value are not scrutinized. The available literature and wide spread availability of M. koenigii in India thus makes it an attractive candidate for further pre-clinical and clinical research.

REFERENCES:

Dheeraj, K.G., Jakhar, S and Dahiya, P. 2014. Murraya koenigii (L.) Spreng: an ethnobotanical, phytochemical and pharmacological review. *Journal of Pharmacognosy and Phytochemistry*., 3 (3): 109-119.

Satyavati, G.V., Gupta, A.K and Tendon, N. 1987. Medicinal Plants of India. *Indian council of medical research*., 2:289-299.

Singh, S., More, P.K., and Mohan, S.M. 2014. Curry Leaves (Murraya koenigii Linn. Sprengal)-A Mircale Plant. *Indian J.Sci.*, 4(1):46-52.

Jain, V., Momin, M., and Laddha, K. 2012. Murraya Koenigii: An Updated Review. *International Journal Of Ayurvedic And Herbal Medicine*., 2(4):607-627.