



Plant folk medicines of *Leguminosae*, practiced in Deulgaon Raja Tahasil, Buldana (MH), India

Kakde NP, Salve MS

Department of Botany, Shri Vyankatesh Arts, Commerce & Science College, Deulgaon Raja Dist. Buldhana, Maharashtra, India

Abstract

Medicinal uses on the family *Leguminosae* growing throughout the Deulgaon raja was carried out during June 2016 to December 2017. A total of 9 species belonging to the family *Leguminosae* were collected and identified. For each species botanical name, common name, Habit, Habitat and medicinal uses has been mentioned.

Keywords: *Leguminosae*, ethnobotany, medicinal plants, Deulgaon Raja, Buldana (MH), India

Introduction

Ethnobotany is considered as a branch of ethnobiology. The term "Ethnobotany" was coined by J. W. Harshberger in 1895 to indicate plants used by the aboriginals: From "ethno"-study of people and "botany" study of the plants. Ethnobotany is the study of how people of a particular culture and region make use of indigenous plants. Ethnobotanists explore how plants are used for such things as food, shelter, medicine, clothing, hunting, and religious ceremonies. *Leguminosae*, commonly known as the legume, pea, or bean family, is a large and economically important family of flowering plants. It includes trees, shrubs, and perennial or annual herbaceous plants, which are easily recognized by their fruit (legume) and their compound, stipulated leaves. Many legumes have characteristics of flowers and fruits. The family is widely distributed, and is the third-largest land plant family in terms of number of species, behind only the *Orchidaceae* and *Asteraceae*, with about 751 genera and some 19,000 known species.

Study area

Buldhana district having hilly and forest area near the range of Gavilgad hills. The district is situated partly in Tapi basin and partly in Godavari basin. The total area of district is 9640 sq kms. The forest covers an area of 1151.83 sq. Km near about 11.92% of the district. The proposed study is carried out in Deulgaon Raja tahasil.

Materials and Methods

Research work was carried out during June 2016 to December 2017 in the area of Deulgaon Raja tahasil. Field work was carried out in order to investigate the existing ethnobotanical practices of the family *Leguminosae* were collected, dried, documented and were identified. Plants were identified using relevant scientific literature (Hooker 1872 – 1877; Cooke 1967 (Rpr.); Sharma *et al.* 1996; Naik 1998; Singh and Karthikeyan, 2000; Singh *et al.* 2001).

About 100 informants were interviewed in this regard. Voucher specimens are deposited in the Department of Botany, Shri Vyankatesh Arts, Com & Sci College, Deulgaon

Raja, Dist. Buldhana (M.S.). Valid scientific name, local name, Family and ethnomedicinal uses are described.

Observation and Results

The present study aimed to investigate the plants used by the local peoples of Tehsil area for their medicinal values. The present study has brought in to light 09 plant species of *Leguminosae* families used for a medicinal purposes by local peoples. A brief information including botanical name, local name, parts used and their medicinal value by the peoples is mentioned. The local people and villagers are using these plants to cure many diseases i.e. the skin diseases, scabies, wounds, boils, vomiting, fatigue, blood purifier, antipregancy, urinogenital disorder, toothache, menstrual disorder, hypertension, cough, diarrhea, dysentery, wound healing, diabetes, jaundice, unstroke, fever, headache etc. are the major diseases in the villages. They prepare the plant product as decoction, oral treatment, ointment etc. The extracts and the paste are the two main methods for treatments of diseases. The plant parts used for medical preparation were bark, roots, rhizome, leaves and whole plants. In some cases the whole plant including roots was utilized. The Deulgaon Raja Tehsil of Buldhana district are rich in medicinal plants. Present investigation indicates that study area of Deulgaon Raja Tehsil of Buldhana district is blessed with magnificent diversity of ethno-medicinal plants used to cure many diseases. The present study will give new incentive to the traditional system of healthcare.

List of ethnomedicinal plants with their uses

Acacia nilotica

Botanical name	<i>Acacia nilotica</i>
Local name	Babul
Habit	Tree
Habitat	All terrestrial habitats

Local use

- Traditionally harvested the seeds to be ground into flour and eaten as a paste or baked into a cake. The seeds contain as much as 25% more protein than common

cereals, and they store well for long periods due to the hard seed coats.

- Plant Secrets Gum.



Fig 1

2) *Acacia catechu*

Botanical name	<i>Acacia catechu</i>
local name	Khair
Habit	Tree
Habitat	All terrestrial habitats

Local use

- Seeds are a good source of protein
- An extract of its heartwood, is used as an ingredient to give red color and typical flavor to paan
- A wood extract called catechu is used in traditional medicine for sore throats and diarrhea
- The concentrated aqueous extract, known as khayer gum or cutch, is astringent
- It is also used for its actions like anti-dyslipidemic, anthelmintic, anti-inflammatory, anti-diuretic, anti-pruritic, coolant, taste promoting, enhancing digestion and curing skin disorder.



Fig 2

3) *Butea Monosperma*

Botanical name	<i>Butea Monosperma</i>
Local name	Palas
Habit	Tree
Habitat	All terrestrial habitats

Local use

- Chakradatta described its gum as astringent and seeds as anti-parasitic.
- Palash is considered anti-inflammatory, antimicrobial, anthelmintic, anti-diabetic, diuretic, analgesic, antitumor and astringent.
- Its leaves are astringent, diuretic and anti-ovulatory properties. Its flowers are tonic and nutritive. Its roots are used to treat night blindness.



Fig 3

Dalbergia latifolia

Botanical name	<i>Dalbergia latifolia</i>
Local name	Shisam
Habit	Tree
Habitat	All terrestrial habitats

Local use

- Cures: diarrhea, Indigestion, obesity, Dermatoses, Sciatica
- Good in fever, Heals Ulcers.
- Normalizes over bleeding in Menstrual cycle



Fig 4

Dalbergia sissoo

Botanical name	<i>Dalbergia sissoo</i>
Local name	Shissu
Habit	Tree
Habitat	All terrestrial habitats

Local use

- Skin disorders and stomach related issues, obesity, non-healing wounds, ulcers, intestinal parasites.



Fig 5

Pongamia pinnata

Botanical name *Pongamia pinnata*
 Local name Karanj
 Habit Tree
 Habitat All terrestrial habitats

Local use

- yields a black gum that has historically been used to treat wounds caused by poisonous fish
- Juices from the plant, as well as the oil, are antiseptic and resistant to pests.
- The oil has a high content of triglycerides, and its disagreeable taste and odor are due to bitter flavonoid constituents including karanjin, pongamol, tannin and karanjachromene.



Fig 6

Tamarindus indica

Botanical name *Tamarindus indica*
 Local name Chinch, Imali
 Habit Tree
 Habitat All terrestrial habitats

Local use

- Seed, leaf, leaf veins, fruit pulp and skin extracts of tamarind possessed high phenolic content and antioxidant activities.
- The fruit of the tamarind is used as a poultice applied to foreheads of fever sufferers.
- The fruit exhibits laxative effects due to its high quantities of malic acid, tartaric acid, and potassium bitartrate.

- Its use for the relief of constipation has been documented throughout the world.



Fig 7

Cassia fistula

Botanical name *Cassia fistula*
 Local name Amaltas
 Habit Tree
 Habitat All terrestrial habitats

Local use

- In Ayurvedic medicine, the golden shower tree is known as *aragvadha*, meaning "disease killer". used in the treatment of inflammatory swellings and as a cleaning agent for ulcers and wounds.
- The fruit pulp is considered a purgative.



Fig 8

Cassia auriculata

Botanical name *Cassia auriculata*
 Local name Tarvar
 Habit Shrub
 Habitat All terrestrial habitats

Local use

- The root is used in decoctions against fevers, diabetes,

diseases of urinary system and constipation.

- The leaves have laxative properties.
- The dried flowers and flower buds are used as a substitute for tea in case of diabetes patients.
- The powdered seed is also applied to the eye, in case of chronic purulent conjunctivitis.



Fig 9

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References

1. Christenhusz MJM, Byng JW. The number of known plants species in the world and its annual increase. *Phytotaxa*. Magnolia Press. 2016; 261(3):201-217.
2. Judd WS, Campbell CS, Kellogg EA, Stevens PF, Donoghue MJ. *Plant systematics: a phylogenetic approach*, Sinauer Associates, 2002, 287-292. ISBN 0-87893-403-0
3. Stevens PF. Fabaceae. Angiosperm Phylogeny Website. Version 7 May, 2006. Retrieved 28 April 2008.
4. British Pharmacopoeia. Department of Health, British Pharmacopoeia Commission, London. The Stationery Office, Khadira (*Acacia catechu*) | National R & D Facility for Rasayana. frlht. org. Retrieved 2014-10-04.
5. Doughari JH. Antimicrobial Activity of *Tamarindus indica*. *Tropical Journal of Pharmaceutical Research*. 2006; 5(2):597-603.
6. Havinga Reinout M, Hartl Anna, Putscher Johanna, Prehsler Sarah, Buchmann Christine, Vogl Christian R. *Tamarindus Indica* L. (Fabaceae): Patterns of Use in Traditional African Medicine. *Journal of Ethnopharmacology*. 2010; 127(3):573-588.
7. Panthong A, Khonsung P, Kunanusorn P, Wongcome T, Pongsamart S. The laxative effect of fresh pulp aqueous extracts of Thai Tamarind cultivars. *Planta Medica*. 2008; 74(09).
8. Pole Sebastian. *Ayurvedic Medicine: The Principles of*

Traditional Practice. Singing Dragon. 2012, 129. ISBN 1848191138. Retrieved November 10, 2012.

9. Bhagwan Dash, Vaidya. *Materia Medica of Ayurveda*. India: B.Jain. 2002, 41-42. Retrieved November 10, 2012.