

# Ethnomedicinal practices of *Piper longum* by the tribals of Paderu region, Alluri Seetharama raju district, Andhra Pradesh

Sujana P<sup>1</sup>., J. Koteswara Rao<sup>2</sup>, S. Padmavathi<sup>3</sup>, E.Gopi<sup>4</sup>

<sup>1,2,3</sup>Department of Botany, Govt. Degree & PG College, Puttur, Tirupati Dt.

<sup>4</sup>Department of Commerce, Govt. Degree College (A), Nagari, Chittoor Dt.

**Abstract**—*Piper longum* commonly known as long pepper, is a significant medicinal plant extensively used in traditional healthcare systems. The paper explores the ethnomedicinal importance of *Piper longum* by the tribals of Paderu region, Alluri Seetharamaraju district, Andhra Pradesh. The plant is cultivated and used by various tribal communities in the Paderu region for their economic and healthcare purpose.

**Index Terms**—Ethnomedicine, *Piper longum*, tribes, Alluri seetharamaraju district, Andhra pradesh

## I. INTRODUCTION

Alluri Sitharama Raju District is one of the North Eastern districts of Andhra Pradesh and it lies between 17° – 17' and 18°-21' of Northern latitude and in between 80° – 53' and 82° – 50' in Eastern longitude. It is bounded on the North partly by the Odisha State Partly by Chattisgarh State and partly by Telangana State on the South by Anakapalli, Kakinada and East Godavari Districts on the West covered by Godavari River and East by Vijayanagaram District with 22 mandals of which 11(Chintapalli, Koyyuru, G.K.Veedhi, G.Madugula, Paderu, Pedabayalu, Munchingiput, Hukumpeta, Dumbriguda, Araku valley and Ananthagiri) mandals are the study area in Paderu agency. It is bounded on the north partly by Orissa state and partly by Vizianagaram district, on south by Rampachodavaram, on west by Orissa state and east by Anakapalli, The entire agency track covers 6, 298 Km<sup>2</sup> i. e., 56.4% of the total geographical area of the district. The total tribal population in the study area is 2,739,919 of which Valmiki are 70,513. Bagatha, Gadaba, Kammara, Khond, Konda dora, Kotia, Porja and Valmiki are the main tribal communities in the study area. Though there are

publications on ethnomedicine for various diseases were not observed necessitating the present study (Alawa *et al.* 2016, Dutta *et al.* 2024, Mohapatra *et al.* 2018, Rahmatullah *et al.* 2009, Rajith and Ramachandran 2010).

## II. MATERIAL AND METHODS

The ethnobotanical survey was conducted during 2008-2012 covering the eleven mandals of the study area and interviews were conducted with the tribes at their habitats. During oral interviews with elder people, medicine men in the tribal area collected first hand ethnomedicinal uses, mode of preparation and administration of medicine. Each medicinal practice was cross checked with at least 3-4 informants. During field survey information was gathered on plants used for various ailments. In 95 pockets of the study area, 139 *vaidhyas* and practitioners were consulted. The specimens were identified with the help of standard floras (Gamble, 1915-1935).

## III. RESULTS

Botanical name: *Piper longum* L.

Family: Piperaceae

Local names: Pippallu (T), Pippali (S) Pipli (H), Long pepper (E), Pippali (Tamil), Tippali (K), Thippali (M), Pimpli (Marati), Pipul (Bengali), Pipal (Punjabi).

Plant disription:

A slender creeping undershrub with jointed root stock, branches many, ascending or prostrate; leaves many, lower ones broadly ovate, upper ones oblong-oval, lower leaves with petioles whereas upper ones with or without petioles, stipules lanceolate, early falling; flowers in spikes, solitary, bracts peltate, stamens 2;

fruit small, blackish green, completely covered by fleshy spike.

Flowering & Fruiting: Through the year.

Location: Korapalli, G. Madugula (Mandal), Alluri Seetharama Raju district.

Ethnomedicinal uses:

\*Acidity: A pinch of fruit powder mixed with one spoon of honey is taken internally.

\*Anaemia: Root paste along with dried zinger paste mixed with half tea glass of water is administered twice a day for 2 days.

\*Berberi: The roots of *Piper longum* are ground with cow dung and this mixer kept in a cloth is squeezed to enable a few drops into the affected eye.

Bronchial disorders: 2 spoonfuls of root decoction is administered once a day for 10 days.

\*Cold & Cough: Half spoon of root paste is administered daily twice.

Root, long pepper, dried ginger and pepper grains are taken in equal quantities and made into powder. A pinch of it is mixed with one spoon of honey and administered daily once.

Diarrhoea and mouth infections: Half spoon of root powder and 10 g of fruit peel of *Terminalia chebula* with a spoonful of honey is administered daily once for 2 days.

\*Ear infection: One drop of leaf juice is instilled into the ear.

Fever: Root paste mixed with paste of dried zinger is administered in 50 g doses twice a day for 2 days.

\*Fever with shivering: Root paste mixed with old jaggery is administered in doses of 50 g once a day for 2 days.

Filariasis: Root with seeds of *Datura metel* are taken in equal quantities and ground, 2 spoonfuls of this paste mixed in a glass of cooled water is administered once a day till cure.

\*Headache: Root paste is applied on the forehead.

\*Heart problems: Quarter spoon of fruit powder mixed with little lemon juice is administered daily once.

Indigestion: Root paste along with root paste of *Plumbago zeylanica* and nut of *Terminalia chebula* taken in equal quantities is administered in doses of 50 g early in the morning.

Jaundice: One g of fruit powder mixed with 5 g of jaggery is taken internally.

Malaria: 2 spoonfuls decoction taken from mixture of 50 g of root, 50 g of dry ginger and 5 seeds of *Piper nigrum* and is administered twice a day for 3 days.

\*Migrain: Three g of fruit powder mixed with rhizome of *Acorus calamus* is administered with hot water or milk daily twice till cure.

\*Tympanitis: Fruit is fried in clayed utensil and powdered. A pinch of it is mixed with one spoon of honey and administered daily once.

\*Tuberculosis: Root paste along with dried zinger is made into paste and it is administered in doses of 50 g with honey twice a day till cure.

\*Vomitings in infants: Root paste along with root paste of *Plumbago zeylanica* and a pinch of dried zinger mixed with honey is given once a day.

#### IV. DISCUSSIONS

This study highlights the role of *Piper longum* in ethnomedicine used by the tribals of Alluri district. Of the total 20 practices 12 practices are found to be new or less known (Kirtikar and Basu, 2003). The plant used to cure a variety of ailments like acidity, anemia, berbere, bronchial disorders, cough, cold, diarrhea, mouth infections, ear infections, fever, filariasis, headache, heart problems, indigestion, jaundice, malaria, migraine, tympanites, tuberculosis, vomiting in infants. Morphological analysis showed the maximum utilization of root in 14 practices followed by fruit (5) and leaf one practice.

Plant used different purposes by different tribals of India and Bagladesh. Bhil tribes of Dhar district, Madhya Pradesh used for Rabies (Alawa *et al.* 2016), Ethnic People of Jorhat District, Assam for influenza (Dutta *et al.* 2024), Tribals of Balsore district, Odissa used for Cough (Mohapatra *et al.* 2018). The rural population, Bheramara area, Kushtia district, Bagladesh used this plant for Syphilis, Difficult in urination (Rahmatullah *et al.* 2009).

There is an urgent need for follow-up ethnopharmacological screening based on tribal claims and beliefs and formulate and standardize some herbal medicines based on ethnotherapeutics either with single plant or in combination for their safe and sustained use for human welfare.

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