

# Ethnomedicinal wisdom of tribals of Mahur forest of Nanded district, Maharashtra, India.

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## Abstract

Mahur range forest of Nanded district is rich in medicinal plants. In the present paper 25 plants species belonging to 25 genera and 20 families used in folk medicine has been documented. Due to poor condition of modern healthcare facilities and poverty the tribal people and rustics of the forest fully or partially depend on local medicinal plants. An attempt has been made to document traditional knowledge from tribal people, medicinal practitioner, traditional healers medicinemen, herbal venders, rustics etc. The plants were enumerated alphabetically along with botanical name, family and vernacular name.

**Keywords:** Ethnomedicine, medicinal plants, ailments, Mahur forest, Maharashtra.

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## INTRODUCTION

India is perhaps the richest repository of traditional knowledge on the medicinal uses of plants. The country possesses an ancient system of health care based on medicinal plants of diverse nature ranging from higher plants to microorganisms from which more than 80% of therapeutic products are derived and has been used form 6000-7000 years (Balakrishnan *et al.*, 2009).

The world health organization(WHO, 2003) has estimated that 80% of the population of developing countries being unable to afford pharmaceutical drugs they relies on plant based traditional medicines to sustain their primary health care needs. India is one of the most medico-culturally diverse country in the world where the medicinal plant sector is honored tradition, that is respected even today. The main traditional systems of medicine include Ayurveda, Unani and Sidha (Bopana and Saxena, 2007). The use of plants as medicine is found in the Rigveda which was written between 45000 and 1600 BC (Balakrishnan *et al.*, 2009).

The Mahur forest of Nanded district of Maharashtra has been widely acknowledged for its "herbal treasure trove". The tribal and rural population of Mahur taluka is composed of different communities. Each tribal community has distinct social and cultural identity of its own. The principle tribes in Mahur are *Andh*, *Kolam*, *Naikede*, *Gond* and *Pradhan*. Tribal people fulfill their needs of plant medicines form nearby forests for curing different ailments. The valuable indigenous knowledge about plants of this area is an important Indian heritage. Tribals are good at knowledge of herbal wealth and related vegetation in the immediate vicinity. The region is still ethnobotanically under exploration. Hence, now a day it is essential to make the documentation of such important medicinal

information. However, many of these potential plants have not yet been studied medico-botanically and its overall medicinal value is ignored. Therefore, the present investigation was carried out to collect the information regarding ethnomedicinal values from the tribals in Mahur Taluka of Nanded District, Maharashtra.

## MATERIALS AND METHODS

### Topography

Mahur taluka is a thick forested area of Nanded District. The main river is Penganga which flows from the South to North direction. Mahur taluka is located in northern part of Nanded district. It is bounded North and South by Yavatamal district. East part by Andhra Pradesh and West by Pusad taluka of Vidarb region.

Geographically the Mahur taluka is situated between 19°49' to 19°83' North latitude and 77°91' to 77°55' East longitude. The total geographical area of taluka is 52160 hectares of which 14397.39 hectares area covered with forest and 37762.61 hectares are non-forested area and its population is 86782 (Census-2001), out of this 15.5 percent is inhabited by tribal population of aborigines like *Andh*, *Kolam*, *Gond*, *Naikede* and *Pradhan* (Pawade *et al.*, 2008).

### Methods of Collection

#### Ethnobotanical survey

Ethnobotanical data was collected between 2008-2011, the information was mainly gathered through semistructured interview. Most of the interviews and discussions were held in Mahur Taluka. In this study 13 knowledgeable elders (between the ages of 45 to 65) chosen with the assistance of local administrators and community leaders who served as key informants. During the course of the study each informant was visited three times in order to verify the reliability of the obtained data. If what was said during the first visit concerning the use of a particular medicinal plant by any informant did not agree with what was told during the second or third visit, such information was considered unreliable and it is discarded. Repeated visits also helped to get some additional information that was not mentioned during the earlier interviews.

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## Identification

The plants were identified with help of standard floras (Naik, (1979); Naik *et al.*, (1998) and Yadav and Sirdesai (2002).

## Enumeration

The plants were enumerated alphabetically along with botanical name, family and vernacular name.

### 1. *Abelmoschus manihot* (L.) Medik. (Malvaceae), Ran bhendi (PRK 18)

#### Use

- One teaspoon seed powder is given at night for three days to cure abdominal pain or gastric problem (Ram Cherange and Gangaram).

### 2. *Amaranthus tricolor* L. (Amaranthaceae), Tandulja or Tandulkundera. (PRK 169).

#### Uses

- Half cup plant juice is given twice a day for six days to treat urinary complaint (Gangaram).
- Plant curry is given against dysentery (Rathod).
- A cup of plant extract is given twice a day for two days to treat fever (Rathod).
- Half cup of stem extract is given twice a day for fifteen days against obesity (Gangaram).

### 3. *Annona squamosa* L. (Annonaceae), Sitaphal (PRK 128)

#### Uses

- One teaspoon leaf juice is taken once to stop vomiting (Mandale).
- Leaf paste is externally applied on wound for quick healing (Mandale).
- Two spoonful bark extract is advised twice a day for eight days to increase appetite (Mandale).

### 4. *Bauhinia variegata* L (Caesalpinaceae), Apta or Kanchan (PRK 23)

#### Uses

- Half teaspoon powder of stem bark and cardamom is given twice a day for twenty days against weakness (Gangaram).
- Powder of two dried leaves, two date palm, dried ginger and black pepper is mixed in glass of water and used to cure malaria (Gangaram)

### 5. *Boerhavia repens* L. (Nyctaginaceae), Punarnawa. (PRK 60).

#### Use

- About half cup leaf extract is given in early morning for seven days to cure hepatitis (Mantute).

### 6. *Calotropis gigantea* (L.) R. Br. (Asclepiadaceae), Pandhri ruchki (PRK126)

#### Uses

- Latex is applied locally on scorpion stinged area (Marape).
- Flower is taken along with betel leaf thrice a day for seven days to treat typhoid (Marap).
- Flower or petals are given along with honey thrice a day to control asthma and cough (Mantute).
- Leaf paste is mixed in 50g jaggery and it is given three times in a day at 10 of minutes interval to expel round worms (Mantute).
- Thorn from foot sole is easily removed by locally applying latex of leaf. (Gangaram).

### 7. *Cassia auriculata* L. (Caesalpinaceae), Tarota (PRK 132).

#### Uses

- Leaf paste is locally applied on wound for quick healing (Merape).
- One teaspoon seed powder is advised along with tea once a day for eight days to treat rheumatism (Perchake).
- Plant ash is rubbed regularly on gum to increase strength of teeth (Perchake).

### 8. *Citrus aurantifolia* (Christm.) SW. (Rutaceae), Limbu (PRK 184)

#### Uses

- Fruit juice with teaspoon sugar is taken twice a day against stomachache (Mantute).
- Two teaspoon fruit juice is taken twice a day for four days to expel intestinal worms (Gite).

### 9. *Clitoria ternatea* L. (Fabaceae), Gokarna (PRK 62)

#### Uses

- Teaspoonful plant powder is advised twice a day for three days to control rheumatism (Pawar).

### 10. *Cordia dichotoma* Forst. f. (Ehretiaceae), Bhokar (PRK 163).

#### Uses

- Fruits are used against diarrhoea (Gangaram).
- Decoction of stem bark is used to treat teeth pain (Cherange).
- Half cup bark decoction is advised orally twice a day for three days as an expectorant (Gite).
- Extract of root bark is taken twice a day for two days to cure dysentery (Marape).

### 11. *Cyperus alopecuroides* Rottb. (Cyperaceae), Local Songavat (PRK 17)

#### Uses

- Paste of rhizome is applied over inflammatory area to reduce inflammation (Gangaram).
- Paste of rhizome is applied over wound for quick healing (Gangaram).

### 12. *Datura innoxia* Mill. (Solanaceae), Dhotra. (PRK 166).

#### Uses

- Paste of leaves is applied on neck twice a day for three days to treat diphtheria (Mantute).

- Half spoon leaf extract is given along with honey to treat cough and asthma (Gangaram).
- Root paste is used against arthritis (Kamble).
- Half spoonful juice of leaves is taken orally once a day for two days to treat fever (Gita).

**13. *Eranthemum roseum* (Vahl) R. Br.** (Acanthaceae), Jabhal rangi (PRK 96).

**Uses**

- Root paste is applied on feet at night to reduce burning sensation or to cure cracks of feet (Ubale).

**14. *Ficus racemosa* L.** (Moraceae), Umbar (PRK 180).

**Uses**

- Five fruits are consumed at morning for ten days against weakness (Cherange).
- Latex is applied on gum against tooth ache (Pawar).
- Two fruits are consumed thrice a day for five days to reduce body heat (Chavan).
- Half cup root extract is taken thrice a day for three days to cure leucorrhoea (Perchake).
- Dated are soaked in latex for seven days and consumed against weakness (Gite).
- Two teaspoon cow milk and one teaspoon latex along with calcium carbonate applied on swelled part twice a day for three days to reduce swelling (Dumane).
- Latex is applied on testis twice a day for three days to control swelling of testis (Dumane).

**15. *Glossocardia bosvallea* (L. f) DC.** (Asteraceae), Khadak shepu (PRK 102).

**Uses**

- Half cup leaf decoction is taken twice a day for three days to cure chronic fever (Gangaram).
- One teaspoon plant powder is given orally twice a day for two days to cure typhoid (Ubale).
- One teaspoon plant powder is given at night for four days to cure gastric trouble (Rathod).

**16. *Haplanthodes verticillata* (Roxb.) R. B.** (Acanthaceae), Pankenar (PRK 110).

**Uses**

- One teaspoon root extract is taken orally with honey twice a day for seven days to treat asthma (Ubale).

**17. *Ixora chinensis* Lamk.** (Rubiaceae), Kalamahu (PRK 121).

**Uses**

- Half cup leaf juice is taken twice a day for two days to cure abdominal pain (Ubale).
- A cup of bark extract is taken orally as an antidote to snake poison (Rathod).

**18. *Lagenaria siceraria* (Molina) Standl.** (Cucurbitaceae), Dudhya bhopala. (PRK 92).

**Uses**

- Half cup juice of fruit is taken thrice a day for seven days to lower the blood pressure (Pawar).

**19. *Limonia acidissima* L.** (Rutaceae), Kauth (PRK 159).

**Uses**

- One cup leaf extract is taken with a cup of cow milk twice a day for three days to treat hepatitis (Pawar).
- One teaspoon fruit powder is taken orally twice a day for seven days to against indigestion (Pawar).

**20. *Mimosa pudica* L.** (Mimosaceae), Lajalu (PRK 59).

**Uses**

- Paste of root powder is applied on wound for quick healing (Ramprasad Pawar).
- Half cup root decoction is given twice a day to remove kidney stone ( Ramprasad Pawar).

**21. *Opuntia elatior* Mill.** (Cactaceae), Phady nivdung (PRK 161).

**Uses**

- Paste of warmed young shoot is applied on inflammatory area twice a day for seven days to cure inflammation (Kadam).
- Paste of stem is applied on corn till cure (Kadam).
- Two teaspoon fruit juice is administrated orally twice a day for three days to cure cough (Kadam).
- Teaspoon fruit juice is advised twice a day for eight days to control asthma (Gangaram).

**22. *Psoralea corylifolia* L.** (Fabaceae), Bawchi (PRK 85).

**Uses**

- One teaspoon seeds powder with spoonful honey is advised twice a day for eight days to reduce body heat (Ubale).

**23. *Sopubia delphiniifolia* (L) G. DON** (Scrophulariaceae), Ranshepu (PRK 95).

**Uses**

- Paste of fresh plant is applied on inflammatory area till cure (Ubale).

**24. *Terminalia arjuna* (Roxb.)Wt.&Arn.** (Combretaceae), Arjun (PRK 168).

**Uses**

- Paste of stem bark is applied on wound for quick healing (Madawe and Gangaram).
- Two teaspoon decoction of stem bark is given twice a day for three days to treat dysentery (Gangaram).

**25. *Tridax procumbens* L.** (Asteraceae), Tantani or Jakham jodi or Dagadipala (PRK 173).

**Uses**

- Leaf paste is applied on wound till cure (Ublae and Madawe).
- Leaf paste is applied on inflammatory area (Gangaram).
- Two drops of leaf extract is dropped in ear two times in a day for three days to treat tympanitis (Ubale and Govind).

## DISCUSSION

The present data is outcome of ethnobotanical explorations carried out during 2008 to 2011. The ethnomedicinal information was collected from 13 tribal and rustic informants who practice and have experience in the use of ethnomedicine. Out of which 12 informants are men and one women whose age ranges between 45 to 65 years. A care was taken to tap information from every nook and corner of hilly areas and the plains as well. The tribal and non-tribal rural populace was consulted for this comprehensive attempt.

Thirty five formulations incorporating 25 plants species were identified as being used for the treatment various diseases. The most noteworthy plants are: *Abelmoschus manihot*, *Amaranthus tricolor*, *Cassia auriculata*, *Citrus aurantifolia*, *Cordia dichotoma*, *Cyperus alopecuroides*, *Eranthemum roseum*, *Haplanthodes verticillata*, *Ixora chinensis*, *Lagenaria siceraria*, *Psoralea corylifolia* and *Sopubia delphinifolia*.

The plants collected and reported from Mahur taluka in the present study were used by the villagers in their routine treatment practices. The authors have gathered the information on 25 plants under utilization in the medicinal lore of village people. The plant specimens and their medicinal uses and ailment for which the particular plant was used are thoroughly cross verified (Jain, 1990 and Jain 1991 ). The collection, identification and documentation of ethnomedicinal data on biological resources were inevitable steps for bioprospecting. The native inhabitants were well-versed with the utilization of plants of their surrounding by their long trial and error method of using the herbal plants.

## CONCLUSION

The Mahur taluka and its vegetation is very important in phytomedicine. Unsustainable use of land resources has serious negative effect on the flora of this region. Sometime, over exploitation of a particular species can also lead to the incidental disappearance of other non targeted species. The natural plant resources of Mahur Taluka are very meager and fast disappearing the public should be made aware of the importance of safeguarding the natural resources of this region.

The studied plants may serve as source of some important medicine against some major diseases. Therefore, claims of tribal should be further validated scientifically.

At the same time, the traditional health practices and other life styles associated with wild plants of Mahur Taluka which had been developed by the village people of this region over a period of time

should also be kept-alike. There is a lot to be done in this promising field with the active support of village people and these medicinally important plants could be rejuvenated for the benefit of our future generations.

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