

# Ethno-medicinal Study on Immense Medicinal plant; *Aegle marmelos*(L.) Corr. (Bael) from Marathwada Region, Maharashtra.

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## ABSTRACT:

*Aegle marmelos*(L.) Corr. commonly called as Bael plant belongs to Rutaceae family. It is naturally growing in India and also recorded in Asia. It has great mythological and medicinal importance. Ethnomedicinal study was carried out along with different ethnic groups in the Marathwada region of Maharashtra the traditional healers still strongly believe that medicinal plants and their usage have great therapeutic values. Documentation on the Utilization of plants for medicinal purposes played a significant role. The current reports reveal that different regions of Marathwada, traditional healers have treasure of knowledge about immense medicinal, holy plant i.e. *Aegle marmelos* (L.) Corr.

**Key words:** Ethno- medicinal, Medicinal Plants,

## INTRODUCTION:

Ayurveda, the ancient healing system of India, focused on views of man and his illness, it means 'Science of long life'. (Kala C.P et al., 2005) Now a day, there has been an increasing awareness in "Ethnomedicine" due to renewed the interest in Green Medicine. Ancient traditional medicinal system including Ayurveda, Siddha, Unanai and Homeopathy also reveals that usage of medicinal plants is essential to human survival. (Mohamed Tariq and Md Rayees Ifham, 2013)

From ancient time different medicinal plants are used by the traditional healers in the health care. A vast knowledge of how to use the plants against different illness is still of great importance. The plant gathering, consumption, management of medicinal plants are central aspects within the tribal community and that have contributed to drug preparation.

*Aegle marmelos* commonly called as Bael plant belongs to Rutaceae family. It is naturally growing in India and also recorded in Asia. It has great mythological and medicinal importance, *Aegle marmelos*(L.) Corr. is slow growing moderate sized, tall tree, aromatic, branched, sharp spiny, gum bearing, deciduous grown up to 8-16 meter in height and its girth is 80-130cm with short trunk. The bark is thick, soft and flaking. Leaves are usually trifoliate, pale green in color, compound, oval in shape, deciduous, and alternate born. Flowers are large nearly 2cm, greenish white, bisexual, actinomorphic, ebracteate with sweet aroma. Fruits are oblong, hard woody, yellowish green color; The pulp is aromatic, sweet, mucilaginous, astringent, pale yellow in color. (Naik. et al., 1998).

Medicinal properties of bael plant have been described in the Ayurveda. In fact, as per Charaka (1500 B.C.), no drug has been longer or better known or appreciated by the inhabitants of India than the bael (Chemexcil, 1992). It is Dashmool herb. All plant parts such as leaves, roots, bark, seeds and fruits having great phytotherapeutic potential. *Aegle marmelos*(L.) Corr. fruit is highly nutritional as well as immense medicinal property such as aromatic, cooling and natural laxative. The unripen fruit is highly medicinal than the ripen fruit. (Sampath K.P. et

al., 2012). The leaves are bitter used as a remedy for diabetes, anemia, ophthalmia, ulcers, dropsy, cholera and associated with a weakness of the heart. The stem and bark of plant are used to cure cough and cold(Nadkarni, 1976).

*Aegle marmelos* (L.) Corr. fruits are widely cultivated in Uttar Pradesh and Bihar in India. On the basis of the fruit size and organoleptic characteristics, it has classified into various varieties in which most important are the Mizapuri, Rampuri, Basti number 1, Azamati, Kaghzigonda, Gonda number 1, KaghziEtawah, , Deoria large, Chakaiaya, Baghael, Lamba, Darogaji and Ojha (Sharma P.et al., 2007).

The present Ethnomedicinal study was conducted in different regions of Marathwada, Maharashtra. The data was collected through questionnaire and interviews. The current reports reveal that different regions of Marathwada, traditional healers have treasure of knowledge about immense medicinal, holy plant i.e.*Aegle marmelos* (L.) Corr.

## Material and Method:

### Study Area:

Marathwada is one of the important region of Maharashtra state. This area lies between 170 35' N & 200 40' N Latitude and 700 40' E & 780 15' E Longitude. Marathwada occupies 21 % geographical area i.e. of 6.5 million hectares of the total area of Maharashtra, which falls in Deccan Plateau Zone of India. Drought is a permanent feature due to average rainfall of about 750 mm yearly. Marathwada region consist of eight districts i.e. Aurangabad, Jalna, Parbhani, Beed, Osmanabad, Nanded, Latur and Hingoli.(Survase S.A and S.D. Raut,2011).

### Data Collection:

For the present study, Ethno botanical observation on medicinal plant *Aegle marmelos* in Marathwada region was carried between November 2015 - March 2016. The questionnaires were prepared to get the direct information on the traditional knowledge that are prevailing and usually practiced by traditional healers. During the interview it was found that the traditional healers collect medicinal plants from variety of habitats.

## RESULT AND DISCUSSION:

Ethnomedicine or natural products have encouraged several developments in drug discovery (Sharman and Dubey W, 2013).Ethnobotany is the most important method to study the relationship between plants and people (McClatchy et al., 2009). The ethnomedicine is study of traditional medicines, not only those with relevant written sources, but also those whose knowledge and practices have been orally transmitted over the centuries (Ganesan S. et al., 2006).It is become necessary to document this valuable information in a highly systematic way.

**Table– 01: Some Medicinal Plants Used in Ethnomedicinal Practices from Marathwada Region (Ladda R.G. et al., 2013).**

Sr No	Botanical Name of Plant	Comman Name	Plant parts used	Ethnomedicinal Uses
1	<i>Adhatodavastica</i> Nees. ( <i>Acantheaceae</i> )	Adulsa	Leaf	Leaf juice is used for cough, diarrhea, dysentery and glandular tumors.
2	<i>Aegle marmelos</i> (L.) Corr. ( <i>Rutaceae</i> )	Bael	Leaf, fruit bark root	Leaf juice alone or leaves paste mixed with <i>Cynodondactylon</i> and <i>Eclipta prostate</i> leaf paste is prescribed in constipation.
3	<i>Catharanthus roseus</i> (L.) ( <i>Apocynaceae</i> )	Sadaphuli	Root & Leaves	Root is used in insomnia, cancer, diabetes, stomachic blood pressure cardio tonic, and sedative. leaf is used in menorrhagia, wasp string, dysmenorrhea, diabetes
4	<i>Enicostema axillare</i> (Lam.) Raynal (Gentianaceae Juss)	Nai	Leaves	The leaves are used in diabetes. Powder of plant mixed with honey used as blood purifier and given in dropsy, abdominal ulcers, hernia and rheumatism
5	<i>Ficus racemose</i> (L.) Moraceae	Umbar	Fruit and root	Root extract is used for general weakness
6	<i>Hemidesmus indicus</i> R. ( <i>Periplocadeae</i> Schlecht).	Kawalichya Mulya	Root	Decoction of root is given in case of loss of appetite after typhoid. Root powder with honey given for blood purification also in rheumatism
7	<i>Ricinus communis</i> (L) ( <i>Euphorbiaceae</i> )	Erand	Leaves root and seed	Leaves used on jaundice it is dipped in seed oil and burned on flame and bandaged over the swollen joints, seed oil used as laxative

8	<i>Solanum virginianum</i> L. (Solanaceae)	Bhuiringni	Root fruit and Flower	Fumes of ripe fruit are inhaled for toothache
9	<i>Termenalia arjuna</i> (Roxb) (Combrataceae)	Arjun	Bark	Decoction of bark used for Cardio vascular diseases and on blood pressure
10	<i>Withaniasomnifera</i> (L.) (Solanaceae)	Ashwgandha Dhorgunj	Root	Roots are use full in vitiated conditions of vata, lucoderma, constipation and nervous breakdown.
11	<i>Virtexnegundo</i> (Verbenaceae)	Nirgundi	Leaves	Juice of leaf mixed with cow urine is taken by womens for menstruation problem.

During the present investigations the ethnomedicinal aspects of *Aegle marmelos*(L.) Corr. were studied by visiting critically different localities where this plant is used on a larger scale. Ethnomedicinal survey of the selected study area was conducted by visiting several times. The information was collected from the local practitioner such as vaidoos, tribals and elder villagers. Different tribal communities, Traditional healers and herb collectors are residing in Marathwada region of Maharashtra such as Thakur, Kokni Thakur, Bhil, Pardhi, Andh and Mahadev Koli etc. are mostly found using *Aegle marmelos*(L.) Corr. plant for healing purposes. All the plant parts are used for Ethnomedicinal remedies. (Table No 02)

In the present study Marathwada region was selected for gathering the traditional knowledge . The respondents were interviewed orally on the spot by using questionnaires

### Documentation of ethnomedicinal data; *Aegle marmelos*(L.)Corr.

Sr No	Name of Traditional Healers	Disorder	Plant part	Ethnomedicinal Remedy
1	<b>Vare Dada</b>	Constipation	Fruit	A cup of fruit pulp juice with adding 2 pinches Black pepper powder, Hing powder and half teaspoon of Ajvain powder and have it once a day for curing indigestion.
2	<b>VishramNagrale Baba</b>	Diarrheaand dysentery	Unripen Fruit	Unripen fruit is slightly roasted on fire and make pulp powdered, take two tsp powder thrice a day for curing blood dysentery
3	<b>Bandusatdive Baba</b>	cold and cough	FreshLeaves	Decoction of Fresh leaves juice with adding 1-3 black peppers can be used on cough.

4	<b>Nalawde Rajesh</b>	Chronic dysentery	Dried unripen fruit powder	A one tsp of dried unripen fruit powder mixture with one glass lukewarm water and consume it twice a day to curing chronic diarrhea.
5	<b>Gopinath Mahala</b>	joint pain and swelling.	Fresh Leaves	The fine Paste of young fresh leaves is applied to the affected area for relief of joint pain and their swelling.
6	<b>Sominth Thakur Vaidu</b>	Hypertension	Fresh Leaf Juice	Extract of fresh leaf juice mixing with 3 tsp honey and drink it every day early in the morning for controlling Hypertension.
7	<b>Pandurang Gudhe</b>	Diarrhea and dysentery	Dried fruit pulp	Mixture of dried fruit pulp and warm water is consumed twice a day to curing the problem of diarrhea
8	<b>Mangal Narayan Thakur</b>	Healing of fracture bones	Dried fruit pulp	Dried fruit pulp powder mixed with turmeric and ghee and applied on fractured bones for healing
9	<b>Surekha Kashi Gavli</b>	Skin problem	dried fruit pulp powder	Drinking dried fruit pulp powder with a glass of warm water or buttermilk twice a day to curing skin problem
10	<b>Vaidya Anna AshrubaBhalerao</b>	Nervousness	Bark	A glass of milk boiled with bark and consuming it to relief from stress and nervousness
11	<b>ShamraoKhalge (Bapu)</b>	Earache	Root	Extraction of plant roots, onion and turmeric in equal proportion and some drops put in ears for reliving earache
12	<b>Dashrath Gosavi</b>	Diarrhea and dysentery	dried fruit pulp	Mixture of dried fruit pulp and warm water is consumed twice a day to curing the problem of diarrhea



## Documentation of traditional medicinal knowledge from traditional practitioner:



### CONCLUSION:

*Aegle marmelos* (L.) Corr. is a highly ayurvedic medicinal tree and have valued for treatment on simple to fatal diseases. Leaves of this plant play vital role as acclimate purifier” hence it is called environmental protector. It is sacred tree amongst the Hindu religion and leaves are sacrilegious. In The present Ethnomedicinal study showed that most of the communities from the study area depend on medicinal plants for their primary healthcare and traditional practices are still popular at Marathwada region. Through ethnomedicinal studies reveals that *Aegle marmelos* (L.) Corr.is used due to its distinctive quality for curing diseases and also for preparation of different drugs for human welfare. Taking this into consideration the immense socio-cultural and medicinal potential of *Aegle marmelos* (L.) Corr.

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