



## ETHNOMEDICINES OF UNDERGROUND PARTS TAPPED FROM HERBAL VENDORS IN NORTH MAHARASHTRA

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### ABSTRACT:

Research relating human plant relationships is being undertaken across a range of disciplines. There are some realms of research which have still largely remained ignored. One such area of research is the traditional medicolore of the herbal vendors in India. The present authors, therefore, extended investigation on this line in some northern districts of Maharashtra (India) to redeem the said situation for the welfare of mankind. This communication particularly focuses on underground plant parts sold by the vendors. As many as 37 plant species are documented pertaining to 32 genera and 25 families of angiosperms. Information regarding type of recipe, parts used, method of administration, local plant names, names of disease, etc is documented. Data regarding status (wild or cultigen) is also presented. The data gathered, however, is desired to investigate active principles, biological activities and their efficacy or clinical trials on more scientific grounds for the welfare of mankind.

**Keywords:-** Ethnomedicine, Herbal Vendors, North Maharashtra.

### INTRODUCTION :

The term 'Ethnobotany' was coined in the last century by Harshberger (1885) distinguishing it from the classic study of 'Economic Botany'. It is confirmed to the relationships of the past or primitive societies of mankind with the vegetable kingdom. The researches particularly in India were filled when Economic Botany Section was started by Botanical Survey of India. Although so, it does not mean that this discipline was not studied earlier. Even a glimpse of 'Bibliography of Ethnobotany' by Jain *et al.* (1984) indicated that studies on this line made a headway in India. After publication of a first book on Ethnobotany by Dr. S. K. Jain (1991), there has been a resurgence in ethnobotanical researches in India. Thus ethnobotanical research is comparatively recent in India. Various primitive societies, geographical regions, rural folks and such other miscellaneous realms have been attempted to

divulge traditional plantlore which was/is carried out over generations in the past by word of mouth. The literature review indicates that the role of herbal vendors has largely been overlooked. Sinha (1998), for the first time, tapped their traditional wisdom as an exclusive topic of research in India. The present authors inventoried some districts of North Maharashtra (India), the results of which are being published (Ahirrao *et al.* 2015 a, b; 2016, 2018, 2021). The present attempt is to communicate their wisdom with particular emphasis on underground parts which are usually overlooked during routine ethnobotanical studies.

### METHODOLOGY:

An inventory was conducted during 2009 – 2014 in districts *viz.*, Dhule, Nandurbar, Jalgaon, Buldhana and Nashik (Map I & II) tapping ethnomedicinal wisdom of herbal vendors. They carry on their traditional business of selling



botanicals in public places such as bus-stands, railway stations, Govt. offices, courts, pilgrim centres, temples, cross-roads, highways, bazar days, etc. Enquiries were made w.r.t. plant parts sold, common name, disease treated, recipes and methods of administration, etc. Botanicals were purchased and photographed during these botanical outings. These have been identified using relevant floras (Cooke 1958, Sharma *et al.* 1956, Singh *et al.* 2000, 2001, Lakshminarasimhan and Sharma 1991; Patil 2003; Kshirsagar and Patil 2008; Diwakar and Sharma 2002). The data accrued is provided in the Table I

### RESULTS AND DISCUSSION:

Ethnobotanical studies open new vistas both in terms of its theoretical contributions to an understanding of man-plant relationships as also the practical applications of the biological knowledge of tribal and rural people in medicine and other bioresources as useful for agriculture and industry. The prevalent practices of indigenous herbal medicines have descended from generation to generation. Investigations to record ethnomedicinal wisdom and experience of the herbal vendors have been largely neglected. There are few records of documentation of their traditional knowledge about applications of botanicals as medicine to cure human afflictions. Mahekar and Yadav (2004 a, b, c, 2008), Sinha (1996) and Sikarwar *et al.* (2012) published their wisdom from Maharashtra Delhi and Madhya Pradesh respectively. Present authors paid attention carefully to document on this line from five districts *viz*; Dhule, Nandurbar, Jalgaon, Buldhana and Nashik comprising North Maharashtra region of Maharashtra (India). The results appeared worth communicating which forms the subject matter of this paper. Exclusive reports on underground parts are rare in India (*cf.* Islam 1996) The paper presents underground plant parts employed to cure human sufferings. The first-hand

information is accrued during various visits in the study area. The underground parts such as roots (34), rhizomes (02), bulbs (01), tubers (01). pertaining 37 species, 32 genera and 25 families of angiosperms Dicotyledonous species (33) are more frequently used as compared to monocotyledonous ones (04). 23 species are wild and 13 cultigens. Some species (01) are either wild or cultigens and 16 species are exotic denoted in \* (Table -I)

The vendors advise the various underground parts to treat human diseases in various forms of recipes such as: powder (18), paste (10), decoction (12), slurry (01), juice (04), infusion (03), and extract (02). The figures denote the number of use - reports of the recipes. As many as 20 different diseases are being treated by these bioresources e.g. rheumatism, diarrhoea, piles, infection of parotid glands, sperm count, jaundice, ulcer, liver, leucorrhoea, urinary tract infection, lung infection, diphtheria, leprosy, bladder-stone, ejaculation of sperms, scabies, tuberculosis, arthritis, rickettsia, herpes, tumor, typhoid, intestinal worms, paralysis, gonorrhoea, kidney-stone, dropsy, apart from other human afflictions.

It is hoped that through such investigations new plant drugs may be discovered. Indigenous knowledge is boon for drug discovery. Their detailed phytochemical and pharmacological studies are, however, required to determine the effective phytoconstituents and characteristic biological activities of these potential medicinal plants. It is, therefore, tentative that a herbal materia medica of the vendors of the ethnomedicinally unexplored areas of India should be recorded systematically before this treasure-trove is lost due to fast rate of acculturation and dwindling number of vendors. Mankind depends on plant world collectively and individually for his survival. We need to find out ways to pay more attention to plants and protect their genetic diversity. Plants species

which find place in religious sentiments, belief and faith obviously thereby help mankind to protect and conserve them.

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**Table I: Underground parts employed treating human diseases.**

Sr. No.	Plant Name & Family	Local Name	Habit	Part used	Wild (W)/ Cultivated (C)	Dicot/ Monocot / Gymno/ Pterido	Use- Reports			
							Recipe Used	Disease	Dose	Period
1	* <i>Pithecelobium dulce</i> (Roxb.) Benth. Mimosaceae	Vilayati chinch	Trees	Roots	C	Dicot.	Extract	Urinary complaint, Piles	One cup twice a day	Three days Three four days
2	* <i>Plectranthus amboinicus</i> (Lour.) Spr. Lamiaceae	Pan owa	Herbs	Roots	C	Dicot.	Juice	Tuberculosis	Two spoon twice daily	One month
3	<i>Plumbago indica</i> L. Plumbaginaceae	Chitawal, Chitrak	Shrubs	Roots	C	Dicot.	Powder, Paste	Intestinal complaint, Goiter	One teaspoon twice daily Applied	Seven days Three days
4	* <i>Plumbago zeylanica</i> L. Plumbaginaceae	Chitramul	Shrubs	Roots	W	Dicot.	Powder, paste	Skin, Piles Abortion, Head ache Smooth delivery	29 mg morning One spoon twice a day, Half cup	One week One month  One month
5	<i>Plumeria rubra</i> L. Apocynaceae	Khairchampa	Trees	Roots	C	Dicot.	Powder	Menstruation	One spoon twice day	Four nights
6	* <i>Portulaca quadrifida</i> L. Portulacaceae	Golkala, Maddam kala	Herbs	Roots, Bulb	W	Dicot.	Paste	Goiter	night	---
7	<i>Pueraria tuberosa</i> (Roxb. Ex Willd.) DC. Fabaceae	Bhadra	Climbers	Tuber	W	Dicot.	Paste, Powder	Sperm count, Piles, Menstruation, Fever	Orally morning Half cup twice day, One spoon night	Seven days Three days Seven days

8	<i>Raphanus sativus</i> L. Brassicaceae	Mula	Herbs	Roots	C	Dicot.	Juice, Powder	Piles, Body heat	Teaspoon twice a day Spoon twice a day	One month  Three days
9	* <i>Ricinus communis</i> L. Euphorbiaceae	Erandi	Trees	Roots	W,C	Dicot.	Decoction Extract	Tumour, Urinary stone	Cup per day	Seven days One week
10	* <i>Rubia cordifolia</i> L. Rubiaceae	Ittamanjith	Climbers	Roots	W	Dicot.	Decoction	Growing hairs, Sperm count	One Cup at night	One month
11	<i>Rungia repens</i> (L.) Nees Acanthaceae	Ghatipitapapada	Herbs	Roots	W	Dicot.	Infusion	Muscle cramp	Cupful morning	Three days
12	<i>Saccharum officinarum</i> L. Poaceae	Oos	Herbs	Roots	C	Monocot.	Powder	Jaundice	Half cup twice day	Eight days
13	<i>Sauromatum venosum</i> (Ait.) Schott Araceae	Ran suran	Herbs	Roots	W	Dicot.	Paste	Fistula	---	---
14	* <i>Sesbania bispinosa</i> (Jacq.) Steud. Ex Wt. Fabaceae	Ranshevari	Herbs	Roots	W	Dicot.	Infusion	Body heat	One spoon twice day	One month
15	* <i>Sesbania sesban</i> (L.) Merr. Fabaceae	Shewarie	Trees	Roots	W	Dicot.	Powder	White spot on skin	One gram	Fifteen days
16	* <i>Sida acuta</i> Burm. f. Tiliaceae	Bala, Chickana	Herbs	Roots	W	Dicot.	Powder	Improve Sperm count	Twice a day spoon	Seven days
17	* <i>Sida cordifolia</i> L. Malvaceae	Bala, Khiranti	Herbs	Roots	W	Dicot.	Decoction Powder	Dysentery,  Leucorrhoea,  Conceive,  Sperm count	One spoon twice day 10-15 ml night Cup twice a day One spoon at night	Three day  Fourty five days One month  Seven days

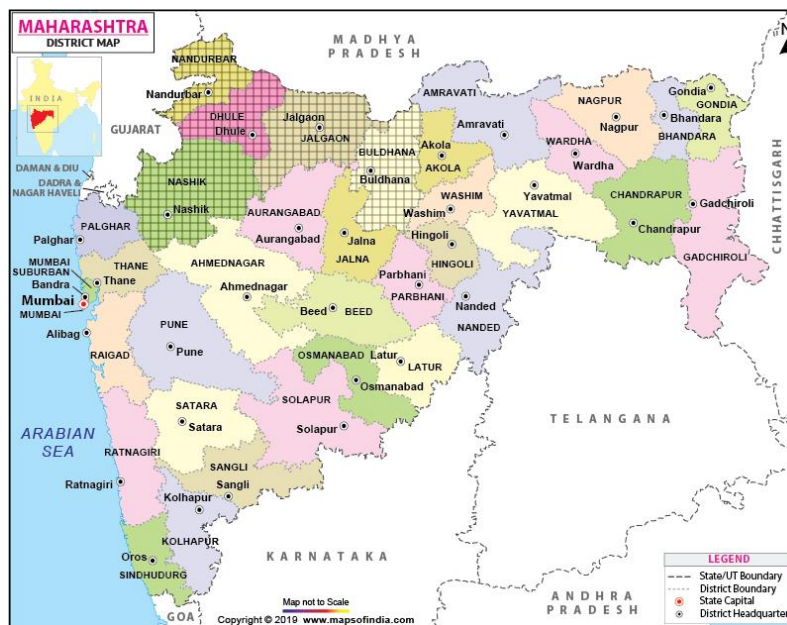
18	<i>Solanum erianthum</i> D. Don Solanaceae	Kutri	Trees	Roots	W	Dicot.	Decoction	Vomiting, Burning, Micturition	One cup evening	Seven days
19	* <i>Solanum melongena</i> L. Solanaceae	Vange	Shrubs	Roots	C	Dicot.	Decoction	Urination	5ml twice a day	Four days
20	* <i>Sorghum bicolor</i> (L.) Moench Poaceae	Jwari	Herbs	Roots	C	Dicot.	Powder	Piles	-	-
21	* <i>Tabernaemontana divaricata</i> (L.) R. Br. Apocynaceae	Ananta, Tagar	Shrubs	Roots	C	Dicot.	Powder	Tooth ache, Bleeding gums	-	Daily
22	<i>Tecomella undulata</i> (Sm.) Seem. Bignoniaceae	Rakhtreora, Rakhorohida	Trees	Roots	W	Dicot.	Decoction	Leucorrhoea	Half cup at night	Fifteen days
23	<i>Thalictrum foliolosum</i> DC. Ranunculaceae	Mamiran, Beenigha	Herbs	Roots	W	Dicot.	Powder	Improve Appetite, Epilepsy	1.3 gm Morning empty stomach with a Cup milk	Fifteen days
24	<i>Tinospora cordifolia</i> (Wild.) Miers Menispermaceae	Gulwel	Climbers	Roots	W	Dicot.	Decoction	Fever	Two spoon twice a day	Four days
25	<i>Toddalia asiatica</i> (L.) Lamk. Rutaceae	Jangli kali mirchi, Limbadi	Trees	Roots	W	Dicot.	Powder	Malaria, Digestion	Half cup at night One spoon	Ten days
26	* <i>Trianthema portulacastrum</i> L. Aizoaceae	Vasu	Herbs	Roots	W	Dicot.	Paste Powder Juice	Watering of eyes, Swelling of spleen, Intestinal worms	Honey orally Orally 5ml night	Fifteen days
27	<i>Uraria picta</i> (Jacq.) Desv. Ex DC. Fabaceae	Pitvan	Herbs	Root	W	Dicot.	Paste	Easy delivery	Morning	One month

28	<i>Valeriana jatamansi</i> Jones. Valerianaceae	Thagarmool	Herbs	Roots	W	Dicot.	Paste	Vaginal infection	Applied	Seven days
29	<i>Vetiveria zizanioides</i> (L.) Nash. Poaceae	Vala	Herbs	Roots	C	Monocot.	Decoction	Gastro Acidity	One cup Spoon at night	Fifteen days
30	* <i>Vigna trilobata</i> (L.) Verdc. Fabaceae	Ran mug	Herbs	Roots	W	Dicot.	Infusion	Diarrhoea	One glass	Thrice a day For week
31	<i>Vitex negundo</i> L. Verbenaceae	Nirgudi	Shrubs	Roots	W	Dicot.	Powder, Pillate	Leucorrhoca	Pillates once morning	Seven days
32	* <i>Vitis vinifera</i> L. Vitaceae	Draksha	Climbers	Roots	C	Dicot.	Slurry	Snake bite	Half cup	-
33	<i>Wattakaka lanceolata</i> (T. Cooke) <i>Jagtap &amp; Sinsh.</i> Asclepiadaceae	Kewad	Climbers	Roots	W	Dicot.	Powder	Cough Acidity Tongue, Ulcer	One spoon Orally Half cup morning	Four days  Three days
34	<i>Withania somnifera</i> (L.) Dunal Solanaceae	Ashwagandha	Shrubs	Roots	W	Dicot.	Past Powder	Join pains, Sperm count	One teaspoon	One month Twice a day For Ten day
35	<i>Wrightia tinctoria</i> R. Br. Apocynaceae	Dudhi indrajao	Trees	Roots	W	Dicot.	Decoction  Infusion	Menstruation,  Joint pains	One spoon twice a day Spoon ful twice day	Seven days  One month
36	<i>Zingiber officinale</i> L. Zingiberaceae	Ale, Suntha	Herbs	Rhizomes	C	Monocot.	Juice  Decoction	Tetanus, Cough,  Fever	2-3 drops daily Spoon twice A day	Fifteen days  One week
37	<i>Zingiber zerumbet</i> (L.) Rosc. Ex J. E. Sm. Zingiberaceae	Kali halad	Herbs	Rhizomes	C	Monocot.	Powder  Paste	Cough, cold  Digestion	One spoon One cup  One Spoon morning	Twice a day For Seven days For One month





Map-I: Map showing the state of Maharashtra in India.



Map-II: Map showing Nasik, Jalgaon, Dhule, Nandurbar and Buldhana districts in Maharashtra.