

ETHNOBOTANICAL STUDY OF TRADITIONAL PLANTS OF MANIA (DHOLPUR), RAJASTHAN

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The traditional ethnomedicinal uses of 27 species belonging to 23 genera and 17 families of angiosperms are presented in this paper. The correct scientific name, local name, family, effective compound and their uses are recorded with due care. Further scientific evaluation on pharmacological and clinical lines is needed for these widely employed herbal medicine.

Keywords : Ethnomedicinal; Genera; Herbal medicine.

Practice of indigenous herbal medicines is one of the advancing frontiers of medicinal science in modern times. From time immemorial plants have played a significant role as curative and protective agents. Aborigines have always used plants of their surrounding to treat a wide spectrum of human diseases. Keeping in view of vegetational richness of this region, attempts have been made to document ethnobotanical study of plants of Mania, Dholpur district, Rajasthan.

The observations are based on surveys conducted in rural area of Mania. The plants are identified by the authors with the help of related literature^{1,2}. Rawat and Pangtey³ has worked on the flora of alpine regions of Kumaon, similarly Gaur⁴ worked on the medicinal plants of Garhwal district. Tomar and Singh⁵ also worked on folk medicinal uses of some indigenous plants among the village people of Barnawa in Baghat district (U.P.).

The present study involves field work and interviews. Medicinal uses collected from the local informants, who are Vaidhya or Hakim, elderly village people and common people in the district. Plants along with the ethnobotanical information were gathered during the trips. The plants were identified and preserved according to standard method⁶. Doubtful medicinal plants are confirmed at the herbarium of Botany Department, University of Rajasthan, Jaipur.

In the present survey of ethnobotanical plants, 27 taxa of angiosperms collected from Mania, Dholpur District. Medicinal plants enumerated here (Table 1) are arranged alphabetically with their botanical name followed by vernacular name, family, effective compounds and medicinal uses.

It was interesting to note that the flora of Mania (Dholpur) is much similar to the flora of Ganganagar⁷ and

western Uttar Pradesh^{8,9}. This similarity in floristic patterns in all these areas could be attributed to the geographical continuity of area and similar climatic conditions. The most dominant families were Moraceae and Euphorbiaceae in the study area.

The increasing demand of medicinal plants has resulted in the dwelling of the natural resources mainly for deforestation and other anthropogenic influence. The local uses of plants as a cure are common particularly in those areas, which have little or no access to modern health services. The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing, due to the advent of modern technology and transformation of traditional culture. Therefore, the collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethnobotanist.

This study throws light on the popularity of our indigenous system of medicine among the rural people¹⁰. They await attention of phytochemists and pharmacologists for further scientific scrutiny to divulge vital drugs for the well being of mankind. It has been realized that medicinal plants are going to play an important role for future in social health system^{8,11,12}. Now the people are accepting indigenous or ayurvedic medicine system, which has no side effects and is easily available with minimum cost.

References

1. Jain S K 1962, Materials for flora of Mt. Abu in Rajasthan. *Indian Forest* 88 55-63.
2. Bhandari M M 1988, *Flora wealth and plants adaptation of the Indian Desert Ecology*, Scientific Publishers, Jodhpur.

Table 1. Important Ethnobotanical plants from Mania (Dholpur) region.

S. No.	Plant Species	Common Name	Family	Effective Compounds	Ethnobotanical Importance
1.	<i>Acacia nilotica</i>	Babul	Mimosaceae	Tannins, Rutein, Cynogens, Lactone	Bark extract is used in Malaria, as astringent and as antifertility
2.	<i>Aloe barbadensis</i>	Ghritakumari	Liliaceae	Aloin, Aloemodin and Resin	Aloe mixture with other plant extracts is used for treating abstraction of lymphatic system.
3.	<i>Amaranthus spinosus</i>	Kanta miris	Amaranthaceae	β -spinasterol, Octacsanoate, Hentriacoantane	Fresh plant decoction used to reduce the menstrual flow and boiled fresh- young leaves used for children as laxative.
4.	<i>Argemone mexicana</i>	Sial kania, Kateli	Papeveraceae	Protopine, Allocryptomine, Berberidine	The juice of the plant is used in ulcers and itching, oil is used for the burning.
5.	<i>Asparagus racemosus</i>	Satawari	Liliaceae	Sitosterol, Stigmasterol, Sirostanolic	Grinded roots are used in veterinary medicine.
6.	<i>Azadirachta indica</i>	Neem	Meliaceae		Juice of the leaves is used as diuretic and leaves with boiled water is used to clean the wounds.
7.	<i>Bambusa polymorpha</i>	Bans, Bamboo	Poaceae	Bamboo contains mainly starch	The leaves of bamboo is eaten by the cattle on the delivery time for easy delivery.
8.	<i>Calotropis gigantea</i>	Safed akada	Asclepiadaceae	Calotropin, calotoxin, β -amyrin	Grinded leaves are applied in skin diseases and latex is in chest pain and on wounds.
9.	<i>Calotropis procera</i>	Sada akada	Asclepiadaceae	Calotropin, Glucosides, Calotropageni	Same as <i>Calotropis gigantea</i> .
10.	<i>Cassia fistula</i>	Amaltas	Caesalpiniaceae	Tannin, Resin, Small quantity of volatile oil.	Grinded leaves are used for pimples, fruit mixture is used in snake bite, swelling and constipation.
11.	<i>Cassia tora</i>	Pamar, Chakunda	Caesalpiniaceae	β -sterol, Lactone, Calome.	Root- bark paste (with albumin of hens eggs) in bone fracture, seed powder (with lime) in ringworm.
12.	<i>Cassytha filiformis</i>	Amarbeli	Cassythaceae	Cassyfine, Cassythine, Nantenine	Powder mixed with gingli oil used as hair tonic, juice of plant mixed with sugar considered as specific in inflamed eyes.
13.	<i>Cynodon dactylon</i>	Doob ghass	Poaceae	Terpenes, Sterols, Fatty oil	Pasts of plant used in bleeding, wounds; Juice of plant applied to stop nose bleeding and skin diseases.
14.	<i>Dalbergia sissoo</i>	Shisham	Fabaceae	Dalbergin, Sissortrin,	Bark extract is useful in fever

			Tectorigenin, Biochanin-A.	and skin diseases also.
15. <i>Datura innoxia</i>	Datura	Solanaceae	l-hyoscyamine, Hyoscyine, Atropine	Juice of the leaves of datura used in the treatment of asthma and motion sickness.
16. <i>Euphorbia</i>	Choti dudhi	Euphorbiaceae	Taraxerol, Triucallol, Betacyanine, Euphorbal	Crushed plant used in stomach disorder of cattle, latex is useful in ringworm and skin diseases.
17. <i>Ficus benghalensis</i>	But, Bargad	Moraceae	Bengalenside, β -sitosterol, Mesoinositol, Friedelin	Extract of young root used in healing, obstruction of urine flow and exudation of pus, crushed leaves are applied on cuts.
18. <i>Ficus racemosa</i>	Gular	Moraceae	Lupeol, β -amirin, β -sitosterol, Tiglic oil.	Latex useful in cuts, insect bites, boiles, swellings; crushed leaves used as a galactogogue for cattle; bark extract used in treatment of domestic animals.
19. <i>Ficus religiosa</i>	Peepal	Moraceae	Scopoletin, Coumerins, Marmesin, Xanthotixin	Bark extract useful in oral wounds in children, wounds caused by burns and ulcers.
20. <i>Indigofera tinctoria</i>	Neel	Fabaceae		Leaves extract has been used as a remedial agent in epilepsy, infantile convulsions, chorea and hysteria.
21. <i>Ocimum sanctum</i>	Tulsi	Lamiaceae	Ursolic acid, Apigenin, Lutiolin, Vicenin.	Crushed leaves are useful in chronic fever, asthma, bronchitis.
22. <i>Officinalis emblica</i>	Amla	Euphorbiaceae	Vitamin C, Pectin, Tannin, Phyllembin	Powder of dried fruit is given in diarrhea and dysentery; It is popular ingredient of triphala and chyawanprash.
23. <i>Ricinus communis</i>	Arand, Arandi	Euphorbiaceae	Recin, Recinine, Linolic acid.	Oil given to the cattle for increasing the milk quantity .
24. <i>Saraca indica</i>	Ashoka	Leguminoceae	Tannin, Ketosterol, Saponin.	The mixture of bark extract with water taken for cooling.
25. <i>Solanum nigrum</i>	Makoi	Solanaceae	Solasodine, Rhamnose, Galactose	The extract of leaves and fruits given to the cattle for the cooling, it is digestive and increase gastric juice secretion.
26. <i>Tribulus terrestris</i>	Gokhuru	Zygophyllaceae	Harmine, Gitogenin, Chlorogenin	Leaves and fruit extracts used as diuretic and in pain.
27. <i>Withania somnifera</i>	Ashwagandha, Asgandh	Solanaceae	Somniferin, Withnanine, Nicotine	Crushed leaves are used as diuretic and used in rheumatism and applied to ulcer and pain swellings.

3. Rawat G S and Pangtey Y P S 1987, A contribution to the Ethnobotany of Alpine regions of Kumaon. *J. Eco. Tax. Bot.* **11** 139-148.
4. Gaur R D 1999, *Flora of district Garhwal north west Himalaya with Ethnobotanical notes*. Trans Media. Sri Nagar Garhwal, India.
5. Tomar A and Singh H 2005, Folk medicinal uses of some indigenous plants among the village people of Barnawa in Baghat district of U.P. India. *J. Non Timber Forest Products* **12**(3) 167-170.
6. Jain S K and Rao R R 1977, *A handbook of field and herbarium methods*. Today and Tomorrows Printers and Publishers, New Delhi.
7. Dhillon K B S and Bajwa P S 1986, A contribution to the Botany of Ganganagar district, north Rajasthan. *Bull. Bot. Serv. India* **11** 234-244.
8. Tomer A 2008, Some folk medicinal plants in Muzzafarnagar district of western Uttar Pradesh, India. *The Indian Forester* **87**(3&4) 200-208.
9. Tomar A 2007, Use of some medicinal plants to cure migraine. *The Indian Forester* **133**(2) 275-278.
10. Tayade S K and Patil D A 2005, Ethnomedicinal traditions of tribals of Nandurbar district (Maharashtra). *J. Phytol. Res.* **18**(2) 251-254.
11. Pawar S and Patil D A 2005, Herbal folk medicine of Jalgaon district (Maharashtra). *J. Phytol. Res.* **18**(2) 235-241
12. Dogra K S, Kohli R K and Sood S K 2009, An assessment and impact of three invasive species in the Shivalik hills of Himachal Pradesh, India. *Int. J. Biodiversity and conservation* **1**(1) 04-10