Research Article

# HERBAL POTENTIAL OF SOME PLANTS IN THE SARKAGHAT TEHSIL OF MANDI DISTRICT OF HIMACHAL PRADESH

Vivek Kumar<sup>1</sup>, Poornima Sharma<sup>2</sup>, Surendra Kumar Godara<sup>3</sup>, \*Nitesh Kumar<sup>4</sup> and Manju Sharma<sup>5</sup>

<sup>1</sup>Department of Biosciences, MLSM College, Sundernagar, Mandi (H.P)

<sup>2</sup>Govt. High school, Dugha, Hamirpur, (H.P)

<sup>3</sup>MGSU Bikaner, Rajasthan

<sup>4</sup>Department of Botany, Govt. Degree College, Sujanpur Tihra (H.P)

<sup>5</sup>Department of Botany, Gautam College, Hamirpur (H. P)

\*Author for Correspondence: niteshchauhan7@gmail.com

# **ABSTRACT**

Traditional knowledge about particular floral diversity of an area is necessary for the identification of plants and their folk uses for the purpose such as for food, shelter, cloths, fodder fuel, in case of religious ceremonies and in case of primary health care. Primary health was the main focus of attention in this research paper. This research paper revealed or documented the therapeutically or local uses of plants of study region of this district for the treatment of various health problem and diseases

Keywords: Ethno- medicine, Herbal potential, Primary Health care, Traditional, Mandi

### INTRODUCTION

Sarkaghat is one of the five urban local bodies in Mandi district of Himachal Pradesh. The sarkaghat town is located is about 60 km away from the Mandi district and it cover most of the population of this district. This district is surrounded by dense forest which is full of plants which having herbal potential related to health problem. The local rural people of this region use the plants and their products for the meeting their daily needs and requirements. Due to the favorable climatic conditions and environmental conditions, this region possesses unique medicinal wealth. The old villagers of this area has huge knowledge associated with the use of

these medicinal plants. This unique medicinal wealth of study area provides material for pharmaceutical, phytochemical, food, flavoring and cosmetic industries (Kaur *et al.*, 2011). The local people have full knowledge about the traditional use of plant for various purposes such as food, fiber shelter, religious purposes and about the medicinal aspects related to these plants. They use plants product based herbal phyto-therapies for treatment of various health problem and diseases. Thus this paper is focused on some plants of Sarkaghat tehsil of Mandi district which having herbal potential and their utilization for the treatment of various health problems of this region.

### Review of literature

Ethnobotany is totally in virtually a new field of research, if in this field plants investigated thoroughly and systematically, it will yield result of great value of the archeologists, anthropologist, plant geographer, enthnobotanist, linguistics, botanists and phytochemists. Arora (1987) described ethnobotany and its role in the domestication and conservation of native plant genetic resources. He gave the detail account of this important area where ethnobotany have still a great to do. Uniyal (1989) highlighted the Garwhal Himalaya in his "Notes on the Ethnobotany of Lahoul, a province of the Punjab". Brij Lal *et. al.*, (1996) described the plants used as ethnomedicine and supplement food by Gaddis of Himachal Pradesh, India. Chauhan N.S. (1999) described the medicinal and the aromatic plants of Himachal Pradesh. Thakur (2001) described the ethnobotany of Rawalsar (Mandi District), Himachal Pradesh. Thakur et al (2004) described the characterization of some traditional fermented food and beverages of Himachal Pradesh. Brij Lal and Singh (2008) find out the indigenous herbal remedies to cure skin disorders by natives of Lahaul Spiti, Himachal Pradesh. Kaur, *et al.*, (2011) studied the uses of plants in control of different

### Research Article

diseases in Mandi district, Himachal Pradesh. Kharwal and Rawat (2012) studied ethno botanical uses of herbal shampoo of Shivalik hills, Himachal Pradesh. Kumar and Choyal (2013) threw light on the traditional health cure practices used for respiratory disorder by the rural people of Hamirpur district of Himachal Pradesh. Kumar *et al.*, (2015) described about the ethno-medicinal uses of some plant in the treatment of constipation, diarrhea, dysentery and other stomach and digestive disorders from district Hamirpur (Himachal Pradesh), India.

### MATERIALS AND METHODS

Various field surveys were carried out for getting the indigenous knowledge about the herbal potential of some plants in the different localities in the Sarkaghat *tehsil* of Mandi district in H.P. during this research. The first hand information was recorded on the plants used as herbal remedies for the treatment of various disease through personal interviews or personal local contact with people of different remote localities study area. The collected plant specimen were preserved in the form of herbarium and identified with the help of 'Flora of Himachal Pradesh' by Chowdhery and Wadhwa (1984); and other relevant literatures were also consulted.

**Study area:** Sarkaghat town is located about 60 km away from the Mandi district and it covers most of the population of this district. This district is surrounded by dense forest which is full of plants which having herbal potential related to health problem. This region possesses unique floral diversity and rich herbal or medicinal wealth which needs proper exploration. This paper explores about the 17 plants species of the study area which are used for medicinal purposes for the treatment of various health problems.

# **RESULTS**

Information about the plants thus studied alongwith their medicinal uses was recorded. A list of medicinal plants species along with their parts which are used for the treatment of medical ailments has been shown in the following table:

S.	Scientific name	Family	Local	Parts used	Folk uses
<b>No.</b> 1	Achyranthes aspera Linn.	Amaranthaceae	Puthkanda	Seed, leaves	The seeds are given in the hydrophobia, in cases of snake bite in ophthalmic diseases. The pulp of fresh leaves applied externally for scorpion sting.
2	Acorus calamus Linn.	Araceae	Bare, bacha	Leaves, roots	The powder of leaves and roots are used as insecticide for pest and insects. Roots are dried, crushed and put in a cloth which is tied to the chest of a patient suffering from cough. It helps in expulsion of phlegm and gives relief.
3	Berberis lycium Royle.	Berberidaceae	Kashmal, daruhaldi	Roots, stem	The extract of either root and stem known as rasount has been used in older time for treatment of skin diseases, sores and leprosy; as an antidote for poisoning, good remedy for oral ulcers and piles. A small decoction of rasount with honey

					is given in case of jaundice. Peeled stem is considered good for scouring teeth.
4	Bombax ceiba Linn.	Bombaceae	Semal, Semul	Seed and bark,flower ,root	Decoction of seed and bark is used for the treatment of gonorrhea. Whole plant material is used in small pox, bleeding gum, toothache, pain in legs, cholera and other diseases. Flowers and fruit paste used in snake bite.Decoction of roots are used against dysentery.
5	Cannabis sativa Linn.	Cannabaceae	Bhang	Leaves	Paste of leaves is used in case of gonorrhea. Paste of fresh leaves is used to resolve tumors. Leaves powder and juice removes lice and dandruff. Leaves paste also used in case of honey bee bite.
6	Cassia fistula Linn.	Fabaceae	Amaltas, Aliah	Roots, fruit, leaves	Decoction of fruit pulp taken twice daily for a week to relieve gastric disorders and constipation in both in man and livestock. Poultices of tender twig applied over toe infection. Root paste is useful in skin diseases and syphilis. Leaves are laxative and anti- periodic. Bark powder is useful in case diabetes and cardiac problem. Flowers are useful in vitiated condition of pita and skin diseases.
7	Curcuma longa L.	Zingiberaceae	Haldi	Rhizome	Powder of Rhizome mixed with milk daily twice a day given to patients to strengthen the body and to cure internal injuries after accident. Rhizome paste with mustard oil is considered good for strengthening the gums. Dried powder of turmeric along with honey is used in case of dry cough.
8	Ficus benghalensis Linn.	Moraceae	Bad, Bargadh	Root, leaves	Roots powder is used in the treatment of syphilis, dysentery and inflammation of liver. Latex is used in case of piles and nose problems. Oil smeared heated leaves are applied externally for suppuration of underarm boils (Kachhali). Paste of leaves is

					applied for healing open wounds.
9	Mallotus philippinensis Muell.Arg.	Euphorbiaceae	Kamala, Sindur	Seed, fruit	Seeds powder is used for the treatment of malaria. One tea spoon of the powdered fruit is prescribed with cow's milk and curd two times a day to expel the worms. Half spoon of powdered fruit with "ajawain" and black pepper is taken for two weeks to purify the blood.
10	Murraya koenigii Spreng.	Rutaceae	Curry patta	Leaves, branches	Leaves are used as mouth freshener while young branches are used for flavoring curries and chutney. Infusion of leaves with "gur" and onion ( <i>Allium cepa</i> Linn.) is taken with hot water twice a day for stomach pain.
11	Ocimum basilicum Linn.	Lamiaceae	Bhabri	Whole plant material	Decoction of whole plant material is useful in case of gonorrhea.
12	Solanum nigrum Linn.	Solanaceae	Makoi	Leaves, fruits	Leaves powder and paste of leaves is applied in the treatment of piles and syphilis etc. Leaves paste and powder is used in the treatment of gout arthritis and rheumatism. Ripe berries are also good for fever and diarrhea. Fruits are also used as laxatives ripe fruit is edible and considered good for heart disease and fever. Decoction of whole plant material is useful for jaundice and liver disorder.
13	Tinospora cordifolia (Wild.) Miers.	Menispermaceae	Giloe, Guljaya	Whole plant material	Whole plant material decoction is used for the treatment of gonorrhea.
14	Terminalia bellerica (Gaertn.)Roxb.	Combretaceae	Bahera	Fruit	Dried fruit powder with salt is used in pile treatment. Fruit is an important component of "Triphala churun" They are also used during indigestion.
15	Viola odorata Linn.	Violaceae	Vanaska	Whole part, flowers	Boiled fresh dried plant material is mixed with water and sugar; this decoction is taken orally at night for seven days for the treatment of jaundice and other lung ailments. Tea made from flower is useful in cough & cold.

Indian Journal of Plant Sciences ISSN: 2319–3824

An Open Access, Online International Journal Available at http://www.cibtech.org/jps.htm

2019 Vol. 8(1) January-March, pp.14-19/Vivek et al.

### Research Article

16	Zingiber officinalis Roscoe.	Zingiberaceae	Adark	Rhizome	Semi- heated rhizome is used for cough and cold. Powdered rhizome is used with deshi ghee which is prescribed with milk for
					the treatment of rheumatic pain.
17	Ziziphus jujuba Mill.	Rhamnaceae	Baer	Roots	Roots paste is applied to the affected parts in case of internal injuries.

### DISCUSSION

This paper revealed the use of 17 plants belonging to 16 families used for the treatment of various health problems. Among these plants, *Solanum nigrum*, *Zingiber officinale* are used for the treatment of rheumatic pain. The plant such as *Acorus calamus* plant species has insecticidal properties. The leaf and root powder is used to kill insect and pests. Some plant species such as *Bombax ceiba*, *Cannabis sativa*, *Ficus benghalensis*, *Ocimum basilicum*, *Solanum nigrum*, *Tinospora cordifolia* are there which are used for the treatment of sexually transmitted diseases such as Syphills, Gonorrhea etc. Plants such as *Berberis lycium*, *Curcuma longa* are used for the treatment of the oral health problems. Other plants are used for the treatment of various problems such as indigestion, liver disorders, purification of blood, malaria treatment and healing of wounds.

### **CONCLUSION**

Indigenous knowledge about the local floral diversity and about the use of local plants for primary health care should be recorded and preserved so that next generation should get and the benefit of the knowledge. Local floral diversity and their plant based traditional phyto-therapy for the treatment of various health problems will prove necessary step in the conservation of traditional knowledge and about the protection of local plants having medicinal importance.

### **ACKNOWLEDGEMENT**

Authors are thankful to the people of study area for their valuable guidance and help during research work.

# **REFERENCES**

**Arora RK** (1987). Ethno botany and its role in domestication and conservation of native plant genetic resources. *In:* Jain S.K. (ed.): *A Manual of Ethno botany Scientific Publishers, Jodhpur* 94-102.

**BrijLal & KN Singh (2008).** Indigenous herbal remedies used to cure skin disorders by the natives of Lahaul-Spiti in Himachal Pradesh, *Indian Journal of Traditional Knowledge* 7(2) 237-241.

**BrijLal, Vats SK, Singh R. and Gupta AK (1996).** Plants used as ethno- medicine and supplement fund by the Gaddis of Himachal Pradesh, India, in: Jain S.K. (ed) *Ethnobiology in Human Welfare, New Delhi*.

**Chauhan NS** (1999). Medicinal and aromatic plants of Himachal Pradesh, (Indus Publishing Company, New Delhi).

Chowdhery HJ and Wadhwa BM (1984). Botanical Survey of India, New Delhi.

Harshberger JW (1896). The purpose of ethno botany. Botanical Gazette 21 146-158.

Jain SK (1964). The role of a botanist in folklore research. Folklore April, 1964.

**Jain SK** (1965c). On the prospectus of some new or less known medicinal plant resources. Indian Medical Journal December: 67-79.

Jain SK (1976b). Ethnobotany its scope and study. Indian Mus. Bull, 2 39-43.

Jain SK (1986). Ethnobotany. Interdisciplinary Science Reviews 11(3) 285-292.

**Jain SK** (1987c). Ethnobotany-its scope and various sub disciplines. In SK. Jain (ed.) *A manual of Ethnobotany* [Scientific Publishers, Jodhpur].

Indian Journal of Plant Sciences ISSN: 2319–3824 An Open Access, Online International Journal Available at http://www.cibtech.org/jps.htm 2019 Vol. 8(1) January-March, pp.14-19/Vivek et al.

### Research Article

**Kala CP (2005).** Ethnomedicional botany of the Aptani in the Eastern Himalaya Region of India. *Journal of Ethnobiology and Ethnomedicine*, 10(11).

**Kapur SK** (1996). Traditionally important medicinal plants of Bhaderwah Hills Jammu, Province - II, 62-69. In Maheshwari, UC. (ed.); Ethnobotany in South Asia. *Journal of Economic, Taxonomic Botany* Additional series, 12. Scientific Publishers, Jodhpur (India).

Kaur, Ismeet, Sharma Shalini and LalSukhbir (2011). Ethnobotanical survey of Medicinal plants used for Different diseases in Mandi district, Himachal Pradesh. *International Journal of research of Pharmacy and Chemistry*, IJRPC.

**Kharwal, Anjna D and Rawat Dhiraj S (2012).** Ethnobotanical notes on indigenous herbal shampoos of Shivalik hills, Himachal Pradesh, (India). *Plant Science Feed* **2**(6) 88-90.

**Kumar, Nitesh and Choyal and Rajaram** (2012). Hamirpur district of Himachal Pradesh for the treatment of Arthritis rheumatism and other inflammatory disorder. *Indian Journal of Plant Sciences* 1 1-5.

**Negi PS and Subramani SP** (2002). Ethnobotanical study in village Chhitkul of Sangla Valley, Kinnaur district, Himachal Pradesh, *Journal of Non-timber Forest Production* **9**(3-4) 113-120.

**PrakashVipin and Aggrawal Ashok** (2010). Traditional uses of ethnomedicinal plants of lower foothills, Himachal Pradesh.

**Sharma PK and Chauhan NS (2000).** Ethnobotanical studies of Gaddi-a tribal community of Kangra district, Himachal Pradesh, *In:* Kohli, R.K., Singh H.P, Vij S.P, Dhār K.K., Batish D.R. and Dhiman B.K. (eds) Man and Forest, Punjab University Chandigarh, 301-302.