



## Survey of selected indigenous medicinal plants used by the villagers of Kalwan Taluka of Nashik district, Maharashtra, India

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### Abstract

Present study gives an account of various uses of selected indigenous medicinal plants from Kalwan Taluka of Nashik District. 71 indigenous medicinal plants belonging to 59 genera and 36 families are dealt herewith which are used by villagers for cure of different diseases. The aim of present investigation is to enumerate the indigenous medicinal plants used by villagers and their medicinal uses. It also throws light on their families, botanical name/s, local name/and their use/s

**Keywords:** indigenous medicinal plants, Kalwan Taluka, uses

### Introduction

Kalwan is a Taluka located in Nashik district of Maharashtra. It is situated 80 km from Nashik and 251 km from state capital Mumbai. Total numbers of villages in this Taluka are 146. As per the Census India 2011, Kalwan Taluka has 40,072 households, population of 2, 08,362 of which 106,130 are males and, 102,232 are females. In a year, the average rainfall is 924.6 mm. A large part of population is dominated by the tribal inhabitants like Kunbi-Kokana, Pawara, Bhils, and Mahadev Koli etc. They have their own socio-cultural traditions and way of life. The forest products are the main source of their livelihood. Kalwan taluka is a place of attraction to many Ayurvedic drug dealers and Vaidis of the area. Saptashringi hill is especially rich in medicinal plants.

In India, earliest references to medicinal plants appear in the *Rigveda*, written between 3500 and 1600 B.C. In *Atharvaveda* too, detailed descriptions of several medicinal plants were given. *Charak-Samhita* and *Susruta-Samhita* are two important works dealing with some 700 medicinal plants. India has been considered a treasure house of valuable medicinal plant species.

Jain (1981) <sup>[4]</sup> undertook intensive field study among the tribals of Central India, with regard to ethnobotany, particularly in the Indian context. Some medicinal plants from Satpuda Mountain has been carried out by Karnik (1966) <sup>[7]</sup>, Shisode and Patil (1993) <sup>[10]</sup> had surveyed native medicinal plants of Jalgaon District, Sonawane et al., (2006) <sup>[12, 16]</sup> studied utilization of Some medicinal plants of Baglan & Malegaon taluka of Nasik district (M.S), Sonawane (2008) <sup>[15]</sup> Surveyed Some Medicinal Plants of Nasik District, Maharashtra, Jondhale et al., (2018) <sup>[6]</sup> Studied Ethnomedicinal Survey of Peth Tribal region of Nashik District, Palwe (2019) <sup>[9]</sup> Studied Indigenous knowledge of Medicinal plants among the tribal population of Dang-Surgana Forests of Western Ghats, India, Sonawane (2020) <sup>[14]</sup> Surveyed Tree Flora of Malegaon Municipal Corporation Area, Nashik District, Maharashtra, India, Sonawane (2021) <sup>[13]</sup> Studied some medicinal plants of Deola taluka of Nashik District, Maharashtra, India. Traditionally there are many plant species used as herbal

medicines all over the world. Therefore, present work was taken to study of indigenous medicinal plants of Kalwan taluka.

### Material and Methods

An extensive survey was carried out in Kalwan taluka in year 2020. The medicinal data was collected through interviews, discussions and observations. Study work was concentrated to indigenous medicinal plants which are used by villagers for curing various kind of disease. The plants were identified with the help of keys to families, genera and species provided in standard floras like Flora of Bombay Presidency (Cooke, T. Vol. I- III) <sup>[2]</sup>, Flora of Savantwadi (Almeida, 1990) <sup>[1]</sup>, Flora of Maharashtra State (Singh & Kathikeyan, 2000, Vol.I) <sup>[11]</sup>, The Bombay Flora ( Dalzell & Gibson, 1973) <sup>[3]</sup>, Flora of Nasik District (Lakshminarasimhan and Sharma, 1991) <sup>[8]</sup>, Nature Heals A Glossary of Selected Indigenous Medicinal Plants of India (Jayvir Anjaria, et al., 1997) <sup>[5]</sup>, relevant literature and expert opinions.

### Enumeration

The medicinal plants with their families, botanical names, local name/s and their use/s are given below.

1. *Abrus precatorius* Linn. (Fabaceae) - Gung. The leaves are useful in bronchitis.
2. *Acacia catechu* Willd. (Mimosaceae)- Khair. Catechu or Kath is used as astringent and applied to boils and ulcers.
3. *Acacia nilotica* (L.) Willd. Ex. Delile. (Mimosaceae)- Babul. Tender shoots are used as tooth brush.
4. *Acacia sinuate* (Lour.) Merr. (Mimosaceae)- Shikakai. Pods are used in all cases of skin diseases.
5. *Achyranthes aspera* L. (Amaranthaceae) - Aghada. Dried leaves are smoked in asthma.
6. *Adhatoda vasica* Nees. (Acanthaceae) - Adulsa. Leaves are used as poultice on rheumatic joints and swelling, they are dried and made into cigarettes and smoked in asthma.
7. *Aegle marmelos* Corr. (Rutaceae) - Bel. Rind of ripe fruit is used in acute dysentery.

8. *Ageratum conyzoides* Linn. (Asteraceae) - Burandu. The tribals used the leaf juice for healing cut wounds.
9. *Ailanthus excelsa* Roxb. (Simaroubaceae) Maharukh. Aromatic leaves are used in medicine.
10. *Albizia lebbek* (L.) Benth. (Mimosaceae) - Shirish. The bark is used medicinally to treat inflammation.
11. *Allium cepa* Linn. (Liliaceae) - Onion. Bulbs and leaves are diuretic, expectorant & useful for dysentery.
12. *Allium sativum* Linn. (Liliaceae)- Garlic. The juice of garlic is useful in skin disease and as eardrop for earache.
13. *Aloe vera* (L.) Burm.f. (Liliaceae) -Korpad. Tender pulp is eaten in rheumatism and piles.
14. *Annona reticulata* Linn. (Annonaceae) - Ramphal. Traditionally fruit is used for diabetic people and for weight loss.
15. *Annona squamosa* Linn. (Annonaceae) - Sitaphal. Seed powder is used to control lice and dandruff.
16. *Aristolochia bracteolata* Lam. (Aristolochiaceae) Gandhani. Leaf paste is applied on inflammation.
17. *Asparagus racemosus* Willd. (Liliaceae) - Shatavari. The root boiled in milk is used as appetiser.
18. *Azadirachta indica* A. Juss. (Meliaceae) - Neem. Leaf paste is applied on ringworm and wound.
19. *Bambusa arundinacea* (Retz.) Willd. (Poaceae) - Bamboo. Extract is used to treat various inflammatory conditions.
20. *Barleria prinitis* Linn. (Acanthaceae) - Kate Koranti. Leaf juice is applied to feet in rainy season to prevent cracking.
21. *Bauhinia racemosa* Lam. (Caesalpiniaceae) - Apta. Bark is used in pains.
22. *Boerhaavia diffusa* Linn. (Nyctaginaceae) - Raktakanda. Seed tonic is useful in scabies and to purify blood.
23. *Bombax cieba* L. (Bombaceae) - Sabar. Fresh fruit paste is used in wounds to cure pain.
24. *Brassica nigra* L. (Brassicaceae) - Black Mohari. Mustard poultice is used in muscular pain.
25. *Bryophyllum pinnatum* Kurz. (Crassulaceae) - Panphuti. Leaves slightly roasted are used as application to wounds, boils and swellings.
26. *Butea monosperma* (Lam.) Taub. (Fabaceae) Palas. Decoction of flowers and bark are used for cough and urinary complaints.
27. *Caesalpinia bonduc* (L.) Roxb. (Caesalpiniaceae)-Sagargota. The seeds are used for fever.
28. *Caesalpinia pulcherrima* Swartz. (Caesalpiniaceae) - Shankasur. Flowers are used in asthma and malarial fever.
29. *Calotropis gigantea* (L.) R. Br. (Asclepiadaceae) - Rui. Warm leaves are applied on rheumatic pain.
30. *Calotropis procera* (Ait.) R. Br. (Asclepiadaceae) - Rui. Warm leaves are used as poultice.
31. *Capparis decidua* Edgew (Forssk). (Capparidaceae)-Caper plant. The plant is traditionally used to cure toothache, malaria and swelling.
32. *Carissa congesta* Wight. (Apocynaceae) - Karvand. The fruits are edible. It is useful in anemia patient.
33. *Cassia auriculata* Linn. (Caesalpinaceae) - Awal. Bark is used as a gargle in sore throat.
34. *Cassia fistula* L. (Caesalpinaceae) - Bahava. The leaf juice is applied on eczema and other skin disease.
35. *Catharanthus roseus* (L) Don. (Apocynaceae)-Sadaphuli. The leaves are used in diabetes to remove sugar.
36. *Celosia argentea* L. (Amaranthaceae) - Kurdu. The seeds are useful in diarrhoea.
37. *Citrus aurantifolia* (Christm) Sw. (Rutaceae) - Limbu. Fruit juice is used in acidity, dysentery and diarrhoea.
38. *Cleome viscosa* Linn. (Capparidaceae) - Piwali Tilwan. Leaves are applied to skin as counter irritant.
39. *Cymbopogon citratus* (DC.) Stapf. (Poaceae) - Lemon Grass. It is useful in typhoid fever, bronchitis, and vomiting.
40. *Cynodon dactylon* (L.) Pers. (Poaceae) - Durva. Whole plant is used on wounds and urinary troubles.
41. *Digera arvensis* Forsk. (Amaranthaceae) - Tandulja. Seeds are given in urinary discharge.
42. *Embllica officinalis* Gaertn. (Euphorbiaceae) - Awala. Fruit juice is used in indigestion. Dried fruit is used in diarrhoea and dysentery.
43. *Eucalyptus glogulus* Labill. (Myrtaceae) - Nilgiri. Oil is used in colds, antiseptic and chest diseases.
44. *Ficus benghalensis* L. (Moraceae) - Vad. Bark is used in painful skin diseases and inflammation.
45. *Ficus glomerata* Roxb. (Moraceae) - Umbar. Ripe fruits are edible. Unripe fruits are used in dysentery.
46. *Ficus religiosa* L. (Moraceae) - Pimpal. Leaves are used in cracked hands and heels to get best results.
47. *Lantana camera* L. (Verbenaceae) - Tantani. Entire plant is used for the treatment of malaria and leprosy.
48. *Lawsonia inermis* L. (Lythraceae) - Mehendi. Leaves paste is applied on soggy cuts between toes.
49. *Leucas aspera* Spreng. (Lamiaceae) - Tamba. Leaf paste fried and applied on the forehead to relieve pain.
50. *Madhuca longifolia* (Koen.) MacBride (Sapotaceae) - Mahuwa. The gum obtained from tree trunk is used to cure boils. Powdered seeds are applied immediately after scorpion bite.
51. *Mangifera indica* Linn. (Anacardiaceae) - Amba. Gum is applied on the cracked feet.
52. *Mentha arvensis* Linn. (Lamiaceae) - Pudina. Dried plant is used as diuretic and stimulant.
53. *Moringa oleifera* Lam. (Moringaceae) - Shevaga. Pods are used as vegetable and act as preventive against intestinal worms.
54. *Murraya koenigii* L. (Rutaceae) - Curry Leaf. Leaves is used in heal wounds, burns and skin eruptions.
55. *Ocimum basilicum* L. (Lamiaceae) - Sabja. Seeds are used in internal piles and constipation.
56. *Ocimum sanctum* Linn (Lamiaceae) - Tulsi. The juice of leaves is used in bronchitis, gastric disorders and skin diseases.
57. *Pandanus odoratissimus* L. (Pandanaaceae) - Kevda. Leaf oil is used in burns.
58. *Pithecellobium dulce* (Roxb.) Benth. (Mimosaceae) - Vilayati Chinch. The bark and pulp are used to treat gum ailments, toothache and bleeding.
59. *Solanum xanthocarpum* Schard. And Wendl. (Solanaceae) - Bhoringani. Leaves are applied on pains.
60. *Syzygium cumini* (L.) Skeels (Myrtaceae) - Jambul. Dried seed powder is used in managing blood sugar levels.
61. *Tamarindus indica* Linn. (Caesalpinaceae) - Chinch. Leaf paste applied on the inflammatory swellings.
62. *Tectona grandis* L. f. (Verbenaceae) - Sag. Bark powdered used on snake bite.

63. *Terminalia arjuna* (Roxb. Ex DC) Wight & Arn. (Combretaceae) Arjun Sadada. Bark powder paste is applied on burns.
64. *Terminalia bellirica* (Gaertn.) Roxb. (Combretaceae) - Behada. Dried fruits are used for cleaning of teeth and relieving coughs. Fruit oil is useful in bronchitis and asthma.
65. *Terminalia chebula* Retz. (Combretaceae) - Hirda. A ripe fruit are purgative and purifies the blood and good in ophthalmia.
66. *Tinospora cordifolia* (Willd.) Hook.f. (Menispermaceae) - Gulvel. Stem pest is applied for fast healing.
67. *Tribulus terrestris* Linn. (Zygophyllaceae) Gokhru. Fruits are diuretic, tonic, and also used in urinary disorders.
68. *Tridax procumbens* Linn. (Asteraceae) Ghavti. Leaf juice is used cuts and wounds.
69. *Vitex negundo* Linn. (Verbenaceae) Nirgundi. Powdered roots are used for piles and dysentery.
70. *Withania somnifera* Dunal. (Solanaceae)- Ashwagandha. The fruits of the plants are used as diuretic and in chest complaints.
71. *Ziziphus jujube* Mill. (Rhamnaceae) - Bor. Root powder is applied on wounds.
7. Karnik CR. Some medicinal plants from Satpuda mountain. Indian Forester,1966:(92):173-183.
8. Lakshminarasimhan P, Sharma BD. Flora of Nasik District. BSI, Calcutta, 1991.
9. Palwe SD. Indigenous Knowledge of Medicinal Plants among the Tribal Population of Dang-Surgana forest of western Ghats, India. International Journal of Current Research,2019:2(03):1875-1879.
10. Shisode SB, Patil DA. Native medicinal plans of Jalgaon District Maharashtra, Biojournal,1993:1(2):79-82.
11. Singh NP, Karthikeyan S. Flora of Maharashtra State Dicotyledons-I Botanical Survey of India, Calcutta, 2000.
12. Sonawane YD, Ansari Ziya. Mamude YB. Utilization of Some Medicinal Plants of Baglan Taluka of Nasik District (M.S) J. Swamy Bot. Cl,2006:23:173-174.
13. Sonawane YD. Survey of some medicinal plants of Deola taluka of Nashik district, Maharashtra, India. International Journal of Advanced Research and Development,2021:6(2):6-7.
14. Sonawane YD. Survey of Tree Flora of Malegaon Municipal Corporation Area, Nashik District, Maharashtra, India. Journal of Research and Development,2020:10(02):113-115.
15. Sonawane Yuvraj. Survey of Some Medicinal Plants of Nasik District, Maharashtra. J. Swamy Bot. CL. 2008; 25: 31-34.
16. Sonawane YD, Ahire DU, Pendse DC. Some Medicinal Plants of Malegaon Taluka of Nasik District. Geobios,2006:33:(1):103-104.

### Result and Discussion

Many of the villagers using herbal medicine for their primary health care. The information collected indicates that in all 71 indigenous medicinal plants are utilized for treatment of various kinds of diseases such as bronchitis, ulcers, asthma, diarrhoea, dysentery, earache, wounds, rheumatism, malarial fever, leprosy etc.

Based on the present investigation it is evident that most of the indigenous medicinal plants are having good attractive features but some plant species are facing a constant threat due to over exploitation.

Therefore, there is an urgent need to creating awareness in villagers for conservation of indigenous medicinal plants, which are continuously becoming degraded.

### Acknowledgements

Author thankful to General Secretary M. G. Vidyamandir and Principal M. S. G. College, Malegaon Camp, for providing laboratory and library facilities.

### References

1. Almeida SM. The Flora of Savantwadi. Scientific Publishers, Jodhpur, 1990.
2. Cooke T. The Flora of the Presidency of Bombay, BSI, Calcutta, 1967, 1, 2, 3.
3. Dalzell, N.A and Gibson, A. The Flora of Bombay, 1861, 2-5.
4. Jain SK. Contribution to Ethnobotany of India. Scientific Publishers, Jodhpur, 1981.
5. Jayvir Anjaria, Mino Parabia, Gauri Bhatt, Ripal Khamar. Nature Heals A Glossary of Selected Indigenous Medicinal Plants of India. Publisher, Shristi innovations Ahmedabad, 1997.
6. Jondhale AS, Chavan SP, Wagh BD. Ethnomedicinal survey of Peth tribal region of Nashik district in Maharashtra. International Journal of Researches in Biosciences, Agriculture and Technology,2018:6(2):177-181.