

## REGULAR ARTICLE

# Ethnomedicinal plants in jalgaon district: current status

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**ABSTRACT**

The remote villages and hamlets of Jalgaon district are repositories of indigenous knowledge about plant wealth. A total of 167 plant species with respect to their valid botanical names, family, local name, parts used, recipe, status whether wild or cultivated are presented disease-wise. Their floristic analysis in the region is presented. As many as 35 plant species are exotic which have been integrated with local traditions. Such a study would help to develop a database of medicinal plants and conservation for posterity. Jalgaon district is a treasure trove of medicinal plant species. If subjected to modern laboratory scrutiny, it would reveal new drugs or provide alternatives.

**Introduction**

Jalgaon district of Maharashtra (India) lies between 20° and 21° north latitude and 74°55' and 76°28' longitude. It comprises 13 administrative tehsils. Satpura mountain stretches on its northern side, besides the off-shoots of western ghats. The forests are mainly dry deciduous type. The tribes such as Bhil, Pawara, Vanjara and Tadwi inhabit this region, apart from rural/urban populace. Agriculture is the main occupation. They cultivate pulses, cereals, some spices, edible fruits and vegetables. Banana is the main fruit in the district (*cf* Kshirsavar and Patil, 2008). The present authors tapped the district from ethnobotanical perspective. This paper throws light on the status especially those of plant taxa as employed in combating various human afflictions.

**Discussion**

Traditional medicines are important resources of healthcare worldwide in spite of increasing access to modern medicine. Selected plant species, their parts, active principles and practices are part of the health regimen of people throughout the world. Although there is increased interest and access to

healing practices which are different from modern medicine, critical queries in the perspective of efficacy and validity of such practices are being made. It is also to be noted that versions of the traditional therapeutic methods are supplanting age-old, established procedures. These later developed versions are gaining popularity throughout the world. Thus modern terms and techniques help add to the traditional ones. Major changes are taking place in the educational fields and transmission of traditional knowledge in order to comply with the norms of modern medicine. An upsurge in traditional medicine is witnessed in last few decades. Discovery of antibiotic drugs was on ascending spiral in recent past but lack of cures for chronic diseases and side-effects especially of western drugs, a search is made to seek alternative medicine. The traditional or ethnomedicine therefore gained importance again in modern times. The present authors carried out investigation in Jalgaon district of Maharashtra (India). They are provided in the Tables 1 to 29. Their important conclusions are provided in the following. This data-base is a valuable tool after scientific scrutiny for supplementing modern medicine or as an additional one.

**Tables 1-29: Ethnomedicinal Plants in Jalgaon District**

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
Table - 1 : Digestion						
1	<i>Abelmoschus esculentus</i> L.	Malvaceae	Fruit	Chewed	Africa	Wild
2	<i>Agremone mexicana</i> L.	Papaveraceae	Root	Extract	Mexico	Wild
3	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Tender leaves	Extract	Persia	Wild
4	<i>Cissampelos pareira</i> L.	Menispermaceae	Leaves	Juice	South America	Wild

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
5	<i>Portulaca oleracea</i> L.	Portulacaceae	Seed	Extract	Europe, North America	Wild
Table -2 : Paralysis						
1	<i>Catunaregam spinosa</i> (Thunb.) Tirvengadam	Rubiaceae	Dry fruit	Powder		Wild
2	<i>Celastrus paniculatus</i> Willd.	Celastraceae	Seed	Seed Oil		Wild
3	<i>Datura metel</i> L.	Solanaceae	Leaves	Paste	Tropical America	Wild
4	<i>Merremia dissecta</i> (Jack.) Hall. f.	Convolvulaceae	Leaves	Juice		Wild
5	<i>Pedaliium murex</i> L.	Pedaliaceae	Fruit	Powder		Wild
6	<i>Celosia argentea</i> L.	Amaranthaceae	Leaves	Extract		Wild
Table -3 : Body Swelling						
1	<i>Barleria cristata</i> L.	Acanthaceae	Plant	Paste		Wild
2	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Stem-bark	Paste		Wild
3	<i>Dolichandrone falcata</i> (Wall.) ex DC.	Bignoniaceae	Leaves	Paste		Wild
4	<i>Luffa cylindrica</i> Mill.	Cucurbitaceae	Leaves	Juice		Cultivated
5	<i>Leonotis nepetifolia</i> (L.) R. Br.	Lamiaceae	Plant	Paste		Wild
6	<i>Peristrophe paniculata</i> (Fork.) Burm f.	Acanthaceae	Plant	Ash		Wild
7	<i>Vitex negundo</i> L.	Verbenaceae	Root	Paste		Wild
Table -4 : Eye complaints						
1	<i>Benincasa hispida</i> (Thunb.) Cogn.	Cucurbitaceae	Fruit	Juice	Java	Cultivated
2	<i>Cajanus cajan</i> (L.) Millsp.	Fabaceae	Seed	Seed Paste	Africa	Cultivated
3	<i>Coriandrum sativum</i> L.	Apiaceae	Leaves	Paste Poulitice	Mediterranean	Cultivated
4	<i>Dendrophthoe falcata</i> (L.f.) Etting	Loranthaceae	Root	Infusion		Wild
5	<i>Hemidesmus indicus</i> L.	Periplocaceae	Root	Powder		Wild
6	<i>Strychnos potatorum</i> L.f.	Loganiaceae	Seed	Powder		Wild
7	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Leaves	Boiled		Wild
8	<i>Xanthium strumarium</i> L.	Asteraceae	Leaves	Juice	S. America	Wild
Table-5 : Typhoid						
1	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Leaves	Decoction		Wild
Table - 6 Haemorrhage						
1	<i>Careya aborea</i> Roxb.	Barringtoniaceae	Stem	Extract		Wild
Table - 7 : Blood Pressure						
1	<i>Santalum album</i> L.	Santalaceae	Stem	Powder		Wild
Table - 8 : Epilepsy						
1	<i>Anogeissus latifolia</i> Bedd.	Combretaceae	Leaf	Decoction		Wild
Table - 8 : Diabetes						
1	<i>Allium cepa</i> L.	Liliaceae	Leaves	Juice	South Asia, Mediterranean	Cultivated
2	<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Leaves	Juice		Wild

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
3	<i>Aristolochia bracteata</i> Retz.	Aristolochiaceae	Leaves	Powder		Wild
4	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Flower	Flower paste		Wild
5	<i>Lantana camara</i> L.	Verbenaceae	Root	Powder	Tropical America	Wild
6	<i>Mangifera indica</i> L.	Anacardiaceae	Inflorescence	Powder		Wild
7	<i>Polyalthia longifolia</i> (Sonner.) Thw.	Annonaceae	Flower	Infusion		Cultivated
8	<i>Bridelia airy-shawii</i> P.T.Li.	Euphorbiaceae	Stem	Bark Powder with water		Wild

Table - 9 : Dysentery

1	<i>Abelmoschus esculentus</i> L.	Malvaceae	Fruit	Raw Fruits	Africa	Wild
2	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Gum	Diluted Gum with Water		Wild
3	<i>Carissa congesta</i> Wight	Apocynaceae	Fruit	Unripe Fruit		Wild
4	<i>Carica papaya</i> L.	Caricaceae	Latex	Latex	Tropical America	Cultivated
5	<i>Cuscuta chinensis</i> Lam.	Cuscutaceae	Stem	Powder		Wild
6	<i>Coccinia grandis</i> (L.) Voigt.	Cucurbitaceae	Fruit	Rind extract		Wild
7	<i>Dichrostachys cinerea</i> (L.) Wt.	Mimosaceae	Root	Infusion		
8	<i>Glossocardia boswellia</i> (L.f.) DC.	Asteraceae	Root	Extract		Wild
9	<i>Limonia acidissima</i> L.	Rutaceae	Root	Paste		Cultivated
10	<i>Murraya koenigi</i> (L.) Spreng.	Rutaceae	Leaves	Powder		Wild
11	<i>Holarrhena pubescens</i> (Buch. Ham.) Wall. ex G. Don	Apocynaceae	Leaves	Extract		Wild
12	<i>Psidium guajava</i> L.	Myrtaceae	Leaves	Poultice	Tropical America	Cultivated
13	<i>Punica grantum</i> L.	Punicaceae	Fruit	Rind Extract	Persia, Iran, Afganistan	Cultivated
14	<i>Terminalia crenulata</i> Roth	Combretaceae	Stem bark	Decoction		Wild
15	<i>Vernonia cinerea</i> L.	Asteraceae	Root	Decoction		Wild

Table - 10 : Stomach Complaints

1	<i>Abelmoschus manihot</i> (L.) Medic.	Malvaceae	Root	Extract	Africa	Wild
2	<i>Abutilom indicum</i> (L.) Sweet	Malvaceae	Root	Infusion		Wild
3	<i>Acacia nilotica</i> Willd. ex Del. subsp. indica (Bth.) Brenan	Mimosaceae	Stem bark	Powder	North Africa Arab	Wild
4	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Stem bark	Decoction		Wild
5	<i>Calatropis gigantea</i> (L.) R. Br.	Asclepiadaceae	Flower and root	Powder		Wild
6	<i>Capsicum annum</i> L.	Solanaceae	Seed	Paste	Tropical America	Cultivated
7	<i>Caesalpinia bonduc</i> (L.) Roxb.	Caesalpinaceae	Fruit	Pulp with Jaggry and lime		Wild

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
8	<i>Citrullus colocynthis</i> (L.) Schrd.	Cucurbitaceae	Fruit	Extract		Wild
9	<i>Corchorus trilocularis</i> L.	Sterculiaceae	Seed	Extract		Wild
10	<i>Cordia dichotoma</i> Forst.f.	Boraginaceae	Fruit	Fruit		Wild
11	<i>Hygrophila schullii</i> (Buch.-Ham.) M.R. and S.M. Almedia.	Acanthaceae	Leaves	Extract		Wild
12	<i>Euphorbia neriifolia</i> L.	Euphorbiaceae	Latex	Latex		Wild
13	<i>Ocimum gratissimum</i> L.	Lamiaceae	Leaves	Decoction		Wild

Table - 11 : Jaundice

1	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Leaves	Decoction		Wild
2	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Flower buds	Chewed	America	Cultivated
3	<i>Mentha spicata</i> L.	Lamiaceae	Fruit	Juice		Cultivated
4	<i>Phyllanthus amarus</i> Schumach and Thonn.	Euphorbiaceae	Entire plant	Decoction		Wild
5	<i>Punica granatum</i> L.	Punicaceae	Leaves	Decoction	Iran	Wild
6	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Rind of pod	Ash		Wild
7	<i>Terminalia chebula</i> Retz.	Combretaceae	Fruit	Fruit extract with cow urrine		Wild

Table - 12 : Acidity

1	<i>Coccinia grandis</i> (L.) Voigt.	Cucurbitaceae	Fruit	Juice		Wild
2	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Tubers	Powder		Wild
3	<i>Lawsonia inermis</i> L.	Lythraceae	Stem	Bark	North America	Cultivated
4	<i>Trichodesma indicum</i> (L.) Lehm. var. indicum.	Boraginaceae	Leaves	Juice		Wild

Table - 13 : Healing

1	<i>Achyranthes aspera</i>	Amaranthaceae	Root	Paste		Wild
2	<i>Crozophora prostrata</i> Dalz.	Euphorbiaceae	Latex	Drop		Wild
3	<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Leaves	Paste	Tropical America	Wild
4	<i>Tridax procumbens</i> L.	Asteraceae	Leaves	Juice	South America	Wild
5	<i>Woodfordia fruticosa</i> (L.) Kurz.	Lythraceae	Flower	Powder		Wild
6	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Ulmaceae	Stem bark	Powder		Wild

Table - 14 : Asthma

1	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Leaves	Leaves		Wild
2	<i>Coccinia grandis</i> (L.) Voigt.	Cucurbitaceae	Fruit	Juice		Cultivated
3	<i>Momordica diocia</i> Roxb. ex Willd.	Cucurbitaceae	Fruit	Powder		Cultivated
4	<i>Nerium indicum</i> Mill.	Apocynaceae	Leaf	Powder	Mediterranean, China	Cultivated
5	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Stem bark	Powder		Wild
6	<i>Trichosanthes tricuspidata</i> Lour.	Cucurbitaceae	Seed	Seeds		Wild
7	<i>Solanum virginianum</i> L.	Solanaceae	Stem	Powder		Wild

Table - 15 : Deafness

1	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	Leaves	Latex	Africa	Wild
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Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
Table - 16 : Body Swelling						
1	<i>Luffa cylindrica</i> (L.) M. Roem.	Cucurbitaceae	Leaves	Juice		Cultivated
2	<i>Vitex negundo</i> L.	Verbenaceae	Root	Paste		Wild
Table - 17 : Migraine						
1	<i>Capsicum annum</i> L.	Solanaceae	Leaves	Extract	Tropical America	Cultivated
2	<i>Luffa acutangula</i> (L.) Roxb.	Cucurbitaceae	Fruit	Snuff		Cultivated
3	<i>Ricinus communis</i> L.	Fabaceae	Root	Powder	Africa	Cultivated
Table - 18 : Fever						
1	<i>Abutilon indicum</i> (L.) Sweet	Malvaceae	Root	Infusion		Wild
2	<i>Blepharis repens</i> (Vahl) Roth	Acanthaceae	Plant	Extract		Wild
3	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Flower	Flower, Milk		Wild
4	<i>Carissa carandas</i> L.	Apocynaceae	Fruit	Paste		Wild
5	<i>Catunargegam spinosa</i> (Thunb.) Tirvengadam	Rubiaceae	Fruit	Extract		Wild
6	<i>Centela asiatica</i> L.	Apiaceae	Leaves	Decoction		Wild
7	<i>Coriandrum sativum</i> L.	Apiaceae	Leaves	Juice	Mediterranean	Wild
8	<i>Diplocyclos palmatus</i> (L.) Jeffery	Cucurbitaceae	Fruit	Paste		Wild
9	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Stem	Bath Powder		Wild
10	<i>Tylophora dalzellii</i> Hook f.	Asclepiadaceae	Root	Powder		Wild
11	<i>Ipomoea aquatica</i> Forsk.	Convolvulaceae	Leaves	Infusion		Wild
Table - 19 : Mouth Ulcer						
1	<i>Lepidagathis cristata</i> Willd.	Acanthaceae	Flower Head	Smoking		Wild
Table - 20 : Herpes						
1	<i>Gmelina arborea</i> Roxb.	Verbenaceae	Root	Paste		Wild
Table - 21 : Strangury						
1	<i>Tectona grandis</i> L.f.	Verbenaceae	Seed	Powder		Cultivated
Table - 22 : Inflammation						
1	<i>Cissampelos parieira</i> L. var. <i>hirsuta</i> (BC.) Forman	Menispermaceae	Leaves	Juice	South America	Wild
2	<i>Portulaca oleracea</i> L.	Portulacaceae	Leaves	Paste	Europe, North Africa	Wild
3	<i>Rivea hypocrateriformis</i> (Desr.) Choisy	Convolvulaceae	Root	Paste		Wild
Table - 23 : Cough and Cold						
1	<i>Adhatoda zeylanica</i> Medic.	Acanthaceae	Leaves	Decoction		Wild
2	<i>Acalypha indica</i> L.	Euphorbiaceae	Plant	Decoction		Wild
3	<i>Barleria prionitis</i> Sant.	Acanthaceae	Leaves	Extract		Wild
4	<i>Cucumis callosus</i> (Rottl.) Cogn.	Cucurbitaceae	Leaves	Extract		Wild
5	<i>Echinops echinatus</i> Roxb.	Asteraceae	Plant	Decoction		Wild
6	<i>Haldina cordifolia</i> (Roxb.) Ridsd.	Rubiaceae	Leaves	Juice		Wild

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
7	<i>Kirganelia reticulata</i> (Poir.) Baill.	Euphorbiaceae	Root	Powder		Wild
8	<i>Pergularia daemia</i> (Forsk.) Chiov.	Asclepiadaceae	Leaves	Decoction		Wild
9	<i>Trachyspermum ammi</i> (L.) Spr.	Apiaceae	Fruit	Smoke	Africa	Cultivated
10	<i>Trichosanthes tricuspidata</i> Lour.	Cucurbitaceae	Fruit	Paste		Cultivated

Table - 24 : Tumours

1	<i>Calatropis gigantea</i> (L.) R. Br.	Asclepiadaceae	Latex	Latex with Clay		Wild
2	<i>Bauhinia purpurea</i> L.	Caesalpiniaceae	Leaves & Bark	Powder		Wild
3	<i>Datura innoxia</i> Mill.	Solanaceae	Leaves	Powder	America	Wild
4	<i>Melia azedarach</i> L.	Meliaceae	Leaves	Pellet of salt and dry leaves		Wild
5	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	Rubiaceae	Stem bark	Paste		Wild
6	<i>Solanum virginianum</i> L.	Solanaceae	Fruit	Powder		Wild
7	<i>Spermacoce hisida</i> L.	Rubiaceae	Stem bark	Powder		Wild

Table - 25 : Food Poisoning

1	<i>Ensete superbum</i> (Roxb.) Cheesm.	Musaceae	Pseudo-stem	Juice		Wild
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Table - 26 : Tonic

1	<i>Curculigo orchioides</i> Gaertn.	Hypoxidaceae	Rhizome	Powder		Wild
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Table - 27 : Rheumatism

1	<i>Boswellia serrata</i> Roxb. ex Coleb.	Burseraceae	Stem	Bam Powder		Wild
2	<i>Brassica juncea</i> L.	Brassicaceae	Seed	Powder in oil	Tibet	Wild
3	<i>Capparis zeylanica</i> L.	Capparidaceae	Root and Bark	Paste		Wild
4	<i>Cissampelos pariera</i> L. var. <i>hirsuta</i> (DC.) Forman	Menispermaceae	Leaves	Paste	South America	Wild
5	<i>Cleome gynandra</i> L.	Capparidaceae	Leaves	Paste		Wild
6	<i>Cocos nucifera</i> L.	Arecaceae	Fresh kernel	Paste		Wild
7	<i>Lablab purpureus</i> (L.) Sweet	Fabaceae	Leaves	Juice		Wild
8	<i>Erythrina variegata</i> L.	Fabaceae	Leaves	Paste locally		Wild
9	<i>Semecarpus anacardium</i> L.f.	Anacardiaceae	Seed	Oil		Planted
10	<i>Trigonella foenum-graecum</i> L.	Fabaceae	Seed	Seeds	South Europe	Cultivated

Table - 28 : Urinogenital Complaints

1	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Stem bark	Decoction		Wild
2	<i>Bombax ceiba</i> L.	Bombacaceae	Stem bark	Decoction		Wild
3	<i>Gloriosa superba</i> L.	Liliaceae	Tuberous root	Paste		Wild
4	<i>Gossypium herbaceum</i> L.	Malvaceae	Root	Powder	Arabia, Africa, Asia minor	Cultivated
5	<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Leaves	Extract	China	Cultivated
6	<i>Pueraria tuberosa</i> (Roxb. ex Willd.) DC.	Fabaceae	Leaves	Extract		Cultivated

Sr. No.	Botanical Name	Family	Part Used	Recipe	Country of Origin	Status
7	<i>Sida acuta</i> Burm. f.	Malvaceae	Leaves	Extract		Wild
8	<i>Soymida febrifuga</i> (Roxb.) A. Juss.	Meliaceae	Leaves	Extract		Wild
9	<i>Tectona grandis</i> L.f.	Verbenaceae	Seed	Powder		Cultivated
10	<i>Withania somnifera</i> (L.) Dunal	Solanaceae	Root	Extract		Wild
11	<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Fruit	Powder	China	Cultivated

Table - 29 : Dental Problem

1	<i>Cassine alberts</i> (Retz.) Kosterm.	Celastraceae	Gum	Gum		Wild
2	<i>Lavandula bipinnata</i> (L.) O. Ktze.	Lamiaceae	Leaves	Paste		Wild
3	<i>Meyna laxiflora</i> Robyns	Rubiaceae	Stem	Stem		Wild
4	<i>Pogostemon parviflora</i> Bth.	Salvadoraceae	Leaves	Peste		Wild
5	<i>Salvadora persica</i> L.	Salvadoraceae	Stem bark	Powder		Wild

The ethnoflora of Jalgaon district (Maharashtra: India) consists of 390 taxa, 310 genera and 96 families. About 359 taxa are found in wild, whereas 31 taxa are under cultivation for various purposes. Of these, a major segment about 167 species form ethnomedicole of the district. These are used to combat as many as 29 major groups of human diseases. They are administered in various form of medicinal recipes e.g. decoction, infusion, extract, juice, paste, powder, oil, latex, gum, ash, etc. Maximum 15 taxa are employed to treat dysentery, which is then followed by other afflictions such as stomach complaints (13 species), fever (11 species), urinogenital complaints (11 species), cough and cold (10 species) and rheumatism (10 species). Other diseases are benefited from just one species (typhoid, epilepsy, deafness, mouth ulcer, strangury, etc.), two species (body swelling) and three species (inflammation), whereas other afflictions are cured by species ranging 4 to 8. Total number applications of various plant parts are as many as 157. The leaves are commonly employed for about 50 applications in the region. Powder is the most commonly used recipe (33 applications), other form of medicinal recipes are paste (27 applications), extract (22 applications) and decoction (12 applications). There is a single species used as salutiferous medicines e.g. tonic. Nearly 35 exotic species appear integrated

with local medicinal utilities when compared with literature (Patil, 1990, 1995; Sharma and Pandey, 1994). They are either wild or under cultivation.

In a nutshell, Jalgaon district is a treasure trone of medicinal plant species. These may be subjected to further laboratory examination to testify their veracity, efficacy and toxicity, if any.

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