



## A Pharmacognostic Review on Ethno-medicinal Plants in Maharashtra Used as Analgesic and Anti-inflammatory Agents

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### Abstract

**Aim:** To accumulate the ethno medicinal flora used in Maharashtra as analgesic and anti-inflammatory agents. **Data sources:** A systematic review was done by using various data sources like Elsevier, Science direct, Pub Med, Google, Medicinal Aromatic Plant Abstract, Books and reputed journals **Study Selection:** Since human civilization, humans had been depending on nature for his or her each day needs, and mainly on flora as a supply of medicine. This reliance result in the improvement of an exceptional machine of understanding recognized as ethnobotany, which includes the connection among flora and their use for diverse sicknesses and disorders by the experimental and mistake method. **Results:** The cutting-edge assessment examine is a try to accumulate the ethno medicinal flora used in Maharashtra as analgesic and anti-inflammatory agents. Plants from families like *Acanthaceae*, *Asteraceae*, *Caesalpinaceae*, *Cucurbitaceae*, *Euphorbiaceae*, *Fabaceae*, *Lamiaceae*, *Liliaceae*, *Malvaceae*, and *Poaceae* had been maximum often applied in Maharashtra. **Conclusion:** This evaluation will assist the latest and destiny researchers in extra studies paintings on those precious natural plant lives.

**Key Words:** Ethno-botany, Ethno-medicine, Maharashtra, Traditional Medicinal Plants

### Introduction

The inflammatory method can be described as a chain of activities that arise in reaction to noxious stimuli, contamination or trauma<sup>2</sup>. The symptoms and symptoms of irritation are nearby redness, swelling, pain, warmth and lack of function. The activities of irritation that underline those manifestations are brought on and controlled via way of means

of a big wide variety of chemical mediators, inclusive of kinins, eicosanoids, supplement proteins, histamine and monokines<sup>3</sup>NSAIDs are the maximum typically used tablets worldwide. They are prescribed for orthopedic conditions which include osteoarthritis, gentle tissue accidents and fracture etc. NSAIDs are one in every of the

best training of drug to save you and deal with postoperative pain <sup>4</sup>. The use of NSAIDs is related to many aspect outcomes; however, their undesirable outcomes on the gastrointestinal tract, kidney and cardiovascular gadget are taken into consideration as fundamental issues with the use of those tablets <sup>5</sup>. The best downside in

currently to be had amazing artificial tablets in their toxicity and reappearance of signs after discontinuation. Therefore, the screening and improvement of drug for his or her anti-inflammatory hobby is the want of hour and there are many efforts for locating anti-inflammatory tablets from indigenous medicinal plants <sup>6</sup>.

**Table No. 1:Table of brief review of plants with their Pharmacognostic view and references**

Sr. No.	Local Name	Biological source	Family	Part used	Chemical Constituents	Category	Reference No
1.	Gunj	<i>Abrus precatorious</i> L	Fabaceae	Leaves	abrasine, abrol, precol	Anti-inflammatory	7
2.	Khair	<i>Acacia chundra</i> Willd	Mimosaceae	Stem, Leaves	catechin, epecatechin, epigallocatechin, epicatechin gallate, phloroglucin	Anti-inflammatory	8
3.	Bel	<i>Aegle marmelos</i> (Linn) Correa	Rutaceae	Fruit, Root, Leaves	coumarin, xanthotoxol, imperatorin, aegeline, and marmeline	Anti-migraine	9
4.	Maharaki, Maharukh	<i>Ailanthus excelsa</i> Roxb	Simaroubaceae	Bark, Leaves, Fruit	$\beta$ -sitosterol, Quassinoids and Ailantic acid	Anti-migraine	10
5.	Kanda	<i>Allium cepa</i> L.	Liliaceae	Bulb, Leaves	allicin, quercetin, fisetin	Analgesic	11
6.	Lahsun	<i>Allium sataivum</i> L	Liliaceae	Bulb	alliin, allicin, ajoenes,	Analgesic, Anti-	12

					vinylidithiins	inflammatory	
7.	Korphad	<i>Aloe vera</i> (Linn.) Burm	Liliaceae	Leaves	Anthraquinone s, including aloe emodin, aloetic acid, aloin, anthracene, anthranon, barbaloin	Anti- inflammatory	13
8.	Kordaganja	<i>Alternanthera tenella</i> Coll	Amaranthaceae	Inflorescence	Benzopyran,ione, anthraquinone, hydroxycinnamic acids	Analgesic	14
9.	Kadechirayat, Kalmegh,B huineem	<i>Andrographis paniculata</i> Wall	Acanthaceae	Whole plant, Leaf	diterpenoid lactones, paniculides, farnesols, and flavonoids	Anti- inflammatory	15
10.	Talimkhana	<i>Asteracantha longifolia</i> (L)	Acanthaceae	Leaves, Seeds	lupeol, stigmaterol, butelin	Analgesic	16
11.	Neem, Kadulimb	<i>Azadirachta indica</i> A. Juss	Meliaceae	Whole Plant	Oleicacid, hexadecanoic acid octadecanoic acid4- octylphenol andOmethyloxi medecanal	Anti- inflammatory	17
12.	Bamboo	<i>Bambusaaru ndinacea</i> (Retz) Wild	Poaceae	Stem, Seed	silica, Cholin, betain, cynogenetic glycosides,	Anti- inflammatory	18

					albuminoids		
13.	-	<i>Basella rubra</i> L	Chenopodiaceae	Whole plant	Rutin, Quercetin, Scopoletin, Coumarin, $\beta$ -xanthin and $\beta$ -cyanin pigments and Caffeic, Homoprotocatechuic-, Chlorogenic-, trans-and cis-p-coumaric-, p-hydroxybenzoic-, phloretic-, trans-and cis-sinapic-, cinnamic-acids	Anti-migraine	19
14.	Apataa	<i>Bauhinia racemosa</i> L	Caesalpinaceae	Leaves, Flowers, Bark, Root	methyl gallate, gallic acid, kaempferol, quercetin, quercetin 3-O- $\alpha$ -rhamnoside, kaempferol 3-O- $\beta$ -glucoside, myricetin 3-O- $\beta$ -glucoside and quercetin 3-O-rutinoside.	Anti-inflammatory	20
15.	Daru Haridra	<i>Berberis aristata</i> (L.)	Berberidaceae	Root bark	Berberine, oxyberberine,	Anti-inflammatory	21

		DC			berbamine, aromoline, a protoberberine alkaloid karachine, palmatine, oxycanthine and taxilamine and tannins, sugar, starch		
16.	Sabarkand & Mohari	<i>Brassica juncea</i> L.	Brassicaceae	Seed oil	Allyl isothiocyanate, diallyl trisulfide, 3-butenyl isothiocyanate	Analgesic	22
17.	Rui / Madar	<i>Calatropisprocera</i> R.Br.	Asclepiadaceae	Root bark, Leaves, Whole plant, Seed	cardenolides, steroids, tannins, glycosides, phenols, terpenoids, sugars, flavonoids, alkaloids and saponins	Anti-migraine	23
18.	Yelyaharan , Velitlaram	<i>Capparis decidua</i> (Forssk.) Edgew.	Capparidaceae	Bark	capparisinine, capparisine, stachydrine, isocodonocarpi ne	Anti-migraine	24
19.	Mirchi	<i>Capsicum annuum</i> L.	Solanaceae	Leaves	capsanthin, capsorubin, beta-carotene,	Anti-migraine	25

					cryptoxanthin, lutein, phytofluene, and xanthophyll		
20.	Chambhar- awali, Chamrawal i	<i>Cassia auriculata L.</i>	Caesalpinia- ceae	Leaf, Fruit, Flower s	3-O- Methyl- dglucose, $\alpha$ - Tocopherol- $\beta$ - D- mannoside, Res- orcinol, n- Hexadecanoic acid, 1, 2, 3, 4- Tetrahydroisoq- uinolin-6-ol-1- carboxylic acid	Anti- inflammatory	26
21.	Bahava, Amaltas	<i>Cassia fistula L.</i>	Caesalpinia- ceae	Fruit, Leaf, Seeds	Oxalic Acids, Tannins, Oxyanthra- quinones, Anthraquinone s, Rhein Glycosides Fistulic Acids, Sennosides A B, Anthraquinone s, and Flavanoid-3-ol- derivatives	Anti- inflammatory	27
22.	Tarota	<i>Cassia obtusifolia L.</i>	Caesalpinia- ceae	Leaves	anthraquinones, xanthenes, polyketide, steroids,	Anti-migraine	28

					triterpenoids, and fatty esters		
23.	Bailmal, Galgala	<i>Cayratia trifolia</i> (L) Domin	Vitaceae	Root	kaempferol, myricetin, quercetin, triterpenes and epifriedelanol.	Analgesic	29
24.	Paralatumb adi	<i>Ceropegia tuberosa</i> Rorb.	Asclepiadaceae	Tuber	alkaloids, tannins, sterols, glycosides, saponins, proteins, lipids	Anti- inflammatory	30
25.	Gokarna	<i>Clitoria ternatea</i> L.	Papilionaceae	Leaves	tannins, phlobatannin, carbohydrates, saponins, triterpenoids, phenols, flavanoids, flavonol glycosides, proteins, alkaloids, anthraquinone , anthocyanins, cardiac glycosides, Stigmast-4- ene-3,6-dione, volatile oils and steroids	Anti- inflammatory	31
26.	Kena, Mothideni	<i>Commelina benghalensis</i> L	Commelinaceae	Whole plant, Root	phlobatannins, carbohydrates, tannins,	Anti- inflammatory	32

					glycosides, volatile oils, resins, balsams, flavonoids and saponins		
27.	Lavhala/ Nagarmoth a	<i>Cyperusrotun dus L.</i>	Cyperaceae	Rhizo me, Ro ot	patchoulone, isopatchouleno ne, sugeonyl acetate, sugetriol triacetate and sugebiol, kaempferol, luteolin and quercetin	Anti- inflammatory	33
28.	Datura	<i>Datura metal L.</i>	Solanaceae	Leaves	pterodntriol B, disciferitriol, scopolamine, adenosine, thym idine, nilekudin oside C and dioscoroside D	Anti- inflammatory	34
29.	Sansada	<i>Delonixelata (L) Gamble</i>	Caesalpinia cae	Leaves	saponin, alkaloid, terpenoids, flavonoids, steroids, phenols, cardio glycosides, quinine coumarins and Tannins	Analgesic	35
30.	Bambu, Vahana	<i>Dendrocalam us</i>	Poaceae	Young shoots,		Analgesic	36



		<i>strictus</i> Nees		Culms			
31.	Medshingi, Medh- shingi, Medsinhi menhigi	<i>Dolichandro ne falcata (Wall. Ex DC.) Seem</i>	Bignoniacea e	Leaf, Fruit		Analgesic	37

## Conclusion

Plants are one of the maximum vital reassets of medicines. So, a ways ago, medicinal plant life were used to deal with unique illnesses because of their accessibility, availability, inherited practice, monetary feasibility, and perceived efficacy. Large group of natural plant life are used as conventional medicine that have capacity to cure diverse illnesses. This evaluation will assist the latest and destiny researchers in extra studies paintings on those precious natural plant lives.

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