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## A BRIEF REVIEW ON: PHYTOCHEMICAL AND ANTIULCER PROPERTIES OF PLANTS (*FABACEAE* FAMILY) USED BY TRIBAL PEOPLE OF GADCHIROLI INDIA.

Lalchand D. Devhare\* and Niharika Gokhale

Oriental College of Pharmacy and Research, Oriental University Indore, Sanwer Road, Jakhya, Indore - 453555, Madhya Pradesh, India.

### Keywords:

Antiulcer, *Fabaceae*, Ethnomedicine, Tribal people, Gond Madiya Jamat, Gadchiroli Region

### Correspondence to Author:

**Lalchand D. Devhare**

Research Scholar,  
Oriental College of Pharmacy and  
Research, Oriental University Indore,  
Sanwer Road, Jakhya, Indore -  
453555 Madhya Pradesh, India.

**E-mail:** lalchand.devhare@gmail.com

**ABSTRACT:** Medicinal plants play a vital role in human health as these are nature's gift to human beings to make disease-free, healthy lives. The various families such as *Amaranthaceae*, *Cucurbitaceae*, *Euphorbaceae*, *Fabaceae*, *Malvaceae*, *Myrtaceae*, *Orchidaceae*, *Piperaceae*, *Solanaceae* etc. comprises several medicinal properties distributed in the tropical and subtropical region of India. The medicinal usage of these families has been reported in the traditional systems of medicine. An exhaustive literature survey was performed on the medicinal plants of the district which revealed that 90 plants belong to different families is reported antiulcer property used by tribal region. Different parts of *Fabiaceae* family plant extract are widely used by tribal (Gond Madiya Jamat) of Gadchiroli to heal ulcer and relieve stomach pain without precipitating any side effects. The present review was conducted and focuses on the ethnomedical, phytochemical and antiulcer activity of different plant extracts of the *Fabiaceae* family.

**INTRODUCTION:** The *Fabaceae* / *Leguminosae*, generally recognized as the legume, pea, or own bean family, remain a huge and cautiously vital own family of blossoming floras. It contains wooden, shrubs, and herbaceous flower perennials or annuals, which might be diagnosed without difficulty by the manner in their quit result (legume) and their composite, specified leaves. The foundation remains broadly distributed and is the 1/3 biggest terrestrial plant family in phrases of a variety of classes, in the back of best the *Orchidaceae* and *Asteraceae*, by 730 genres and above 19,400 species<sup>1</sup>.

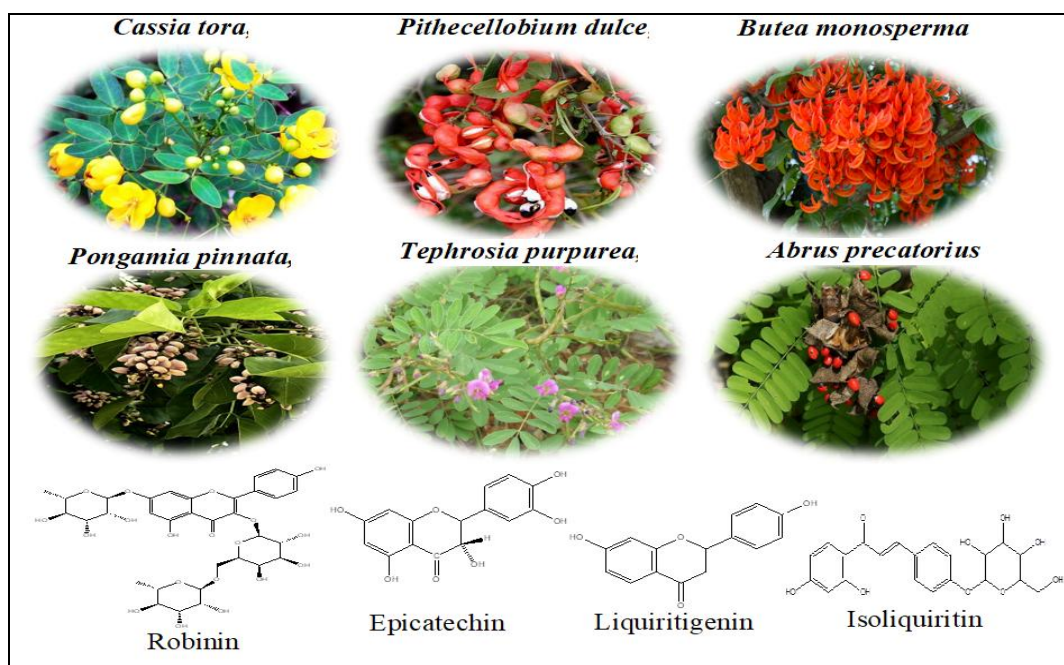
The most important species are *Astragalus* (above 2,400 species), *Acacia* (above 950 species), *Indigofera* (about 700 species), *Crotalaria* (about 700 kinds), besides *Mimosa* (about 500 species), which cover about 9.4% of all blossoming plant types<sup>2</sup>. Present-day molecular then morphological evidence facilitates the reality that *Fabaceae* is a solo monophyletic circle of relatives<sup>3</sup>. The efficacy of medicinal plants for the treatment of peptic ulcer disease. The researcher's observed activity in these plants is attributed to the presence of flavonoids, alkaloids, terpenoids, tannins, saponins, and phenolic acids<sup>4</sup>.

Based at the literature assessment common of 6 flora (*Cassia tora*, *Pithocellobium dulce*, *Butea monospermous*, *Pongamia pinnata*, *Tephrosia purpurea*, *Mucuna pruriens*) which may be substantially allotted inside the direction of the Gadchiroli place of Maharashtra. The conventional understanding of remedial flora and their use by

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consuming the usage of indigenous healers and remedy improvement within the gift are beneficial not only for preservation of cultural tradition and biodiversity but also for public health care and drug improvement in close by human beings. A peptic ulcer is a remitting, relapsing wound most often recognized in center-aged to older adults. It impairs the high-quality of lifestyles; it's miles one of the leading reasons for gastrointestinal surgical operation with excessive morbidity and mortality fees <sup>5</sup>. The pathogenesis of ulcers consists of mainly competitive factors (acid, pepsin, bile, and *Helicobacter pylori* infection), which can be complemented through factors that include demanding lifestyle, alcohol intake, smoking, use of steroidal and nonsteroidal anti-inflammatory drugs (NSAIDs) and lower socioeconomic fame <sup>6</sup>. <sup>7</sup> Further to allopathy capsules, herbal flowers are also well-liked within the antiulcer drug market due

to their safer ability, effectiveness, and comfort <sup>8, 9</sup>. Although ulcer is not a deadly disease, it can lead to more serious complications like gastrointestinal bleeding, perforations, penetration of ulcer into adjacent organs, and gastric outlet obstruction <sup>10</sup>. Medications are used to relieve the pain, heal ulcerations and delay the recurrence of ulcerations. These include antibiotics <sup>11</sup> antacids, and proton pump inhibitors <sup>12</sup>. Several drugs are available in the market for gastric ulcer therapy; however, most drugs are associated with unwanted side effects <sup>13</sup>. The present review article will emphasize the ethnopharmacological, phytochemical and antiulcer potential of several plants of the fabiaceae family, traditionally used for healing purposes in tribal areas like Gadchiroli District of Maharashtra, India. **Fig. 1** represents some antiulcer potential from the plant.



**FIG. 1: SOME POTENTIAL ANTIULCER AGENTS FROM PLANT**

**Antiulcer Potential of Plant from Fabaceae Family:** In Recent Studies of *Cassia tora*, *Pithecellobium dulce*, *Butea monosperma*, *Pongamia pinnata*, *Tephrosia purpurea*, *Abrus precatorius*, *Cajanus cajan*, *Vigna mungo*, *Tamarandus indica*, *Pterocarpus marsupium var.*, *Mucuna pruriens* (*Fabaceae*) and this plant used by tribal people Gond, Madiya, Adiwasi Jamat of gadchiroli maharashtra. The present findings are probably the first record of medicinal plants in the family *Fabaceae* of the Gadchiroli region of

Maharashtra. Medicinal plants used by local people of the region the neighborhood health healers had used a total of 90 medicinal plant species belonging to 11 genera for the remedy of different sicknesses. Amongst exclusive plant parts utilized by these humans, the Leaves, Roots, Bark, Fruit, Gum, and flower plant life are used most regularly to treatment ulcers. Normally, a sparkling part of the plant may be used to guide drugs. The Scientific Classification of 11 plants belonging to the *Fabaceae* family is given in **Table 1**.

TABLE 1: SCIENTIFIC CLASSIFICATION

Class Plant Name	Kingdom	Sub-kingdom	Super-division	Division	Class	Subclass	Order	Family	Genus	Species
<i>Cassia tora</i>									Senna	Sennatoria(L.)
<i>P. dulce</i>									Mill-Senna Pithecellobium Mart-Blackbead	Roxb.-Sickle senna Pithecellobium Dulce(Roxb.) Benth.- Monkeypod
<i>B. monosperma</i>									Butea Roxb.ex Willd- Butea	Butea monosperma (Lam.) Taubert- Bengal kino
<i>P. pinnata</i>									Millettia Wight & Arn.- oiltree	Millettia pinnata(L.) Panigrahi- Pongame oiltree
<i>T. purpurea</i>	Plantae- Plants	Tracheobiont a- Vascular plants	Spermatophyta- Seed plants	Magnoliophyta- Flowerin g Plants	Magnoliopsida- Dicotyledons	Rosidae	Fabales	Fabaceae/ Leguminosae- Pea Family	Tephrosia Pers.- hoarypea	Tephrosia purpurea (L.) Pers. - fishpoison
<i>M. pruriens</i>									Mucuna Adans.- mucuna	Mucuna pruriens (L.) DC. - velvet bean
<i>A. precatorius</i>									Abrus Adans. - abrus	Abrus precatorius L. - rosarypea
<i>C. cajan</i>									Cajanus Adans. - cajanus	Cajanus cajan (L.) Millsp. - pigeonpea
<i>V. mungo</i>									Vigna Savi - cowpea	Vigna mungo (L.) Hepper - black gram
<i>T. Indica</i>									Tamarindus L. - tamarind	Tamarindus indica L. - tamarind
<i>P. marsupium</i> var.									Pterocarpus Jacq. - pterocarpus	Pterocarpus marsupium Roxb. - Malabar kino

**Pharmacology of Several Plants Used in Tribal Regions with Special Emphasis on Antiulcer Potential:** The Fabaceae family plant antiulcer activity were reported in various research. The various antiulcer activities are separated from the Fabaceae family reviewed here.

***Cassia tora:*** Hydroalcoholic extracts of *Cassia tora* (Seeds) were evaluated for antiulcer pastime in alcohol-precipitated gastric ulcers in albino rats, and authors said full-size interest in lowering the gastric volume, pH, and general acidity, suggest ulcer score and ulcer index<sup>14</sup>.

***Pithecellobium dulce:*** The hydroalcoholic extract of *Pithecellobium dulce* (Fruit) became discovered to own a proper antioxidant hobby and shows probable antiulcer hobby with its “unfastened-radical scavenging and inhibition of H, okay-ATPase activities similar to omeprazole. Phytochemical screening yielded flavonoids - quercetin, rutin, kaempferol, naringin, daidzein<sup>14</sup>.

***Butea monosperma:*** The alcoholic extract of *Butea monosperma* bark at 500mg/kg confirmed 79.30 and eighty-two.20% healing against ethanol and aspirin-caused gastric ulcerations respectively

signifying free radical scavenging houses of the extract for antiulcer effect”<sup>14</sup>.

***Pongamia pinnata:*** It's been stated that the methanolic extract of *Pongamia pinnata* roots confirmed extensive safety in opposition to aspirin and 4 h PL, but no longer in opposition to ethanol-triggered ulceration. It confirmed an inclination to lower acetic acid-brought-on ulcers after ten days of treatment. Ulcer protecting effect of PPRM changed because of augmentation of mucosal-protecting elements, including mucin secretion, the existence “span of mucosal cells, mucosal cell glycoproteins, mobile proliferation, and lipid peroxidation prevention” in preference to the offensive acid-pepsin secretion<sup>14, 15</sup>.

***Tephrosia purpurea:*** “The antiulcer activity of water extract of *Tephrosia purpurea* root changed into studied in rats in which gastric ulcers were brought about by way of oral administration of alcohol or 0.6 M HCl or indomethacin or via pyloric ligation and duodenal ulcers have been brought on by using oral administration of cysteamine HCl”. Consequences recommend plant extracts exhibit enormous antiulcer belongings either because of cytoprotective movement or

through the strengthening of duodenal and gastric mucosa and, for this reason improving mucosal defense<sup>14</sup>.

***Mucuna pruriens***: The prevailing examine is meant to research and examine the antiulcer pastime of the alcoholic extract of *Mucuna pruriens* (Seed) by means of indomethacin-caused ulcer in albino rats and to decide its link among oxidant or antioxidant parameter. The extract of *Mucuna pruriens* was examined on “indomethacin-induced gastric ulcer in albino rats”. The antiulcer interest of high dose (400 mg/kg) and occasional dose (two hundred mg/kg) of alcoholic extract of *Mucuna pruriens* have been assessed by measuring the ulcerative place and percentage reduction of the ulcerative region, which was compared with preferred drug misoprostol<sup>14</sup>.

***Abrus precatorius***: Antiulcer efficacy of “*Abrus precatorius* leaf extract against acetic acid-induced stomach ulcer in rats was tested. *A. precatorius* dosages of 150 mg per kg and 300 mg per kg were given orally once daily for ten days”. The plant leaves reduced stomach volume and acidity, resulting in a gastric antisecretory action. Then, gastric mucin was raised, which demonstrated a stomach cytoprotective effect<sup>15</sup>.

***Cajanus cajan***: Alcoholic *Cajanus cajan* leaves extract shows a significant antiulcer property. The extracts also possess free radical scavenging property on endogenous PGs. The ethanolic extract of *Cajanus cajan* leaves possess “Antiulcer activity could be mainly due to the modulation of defensive factors through an improvement of gastric cytoprotection and partly due to acid inhibition”<sup>15</sup>.

***Vigna mungo***: In a dose-dependent manner, the ulcerogenic activity of leaves extract substantially (P0.05) reduced the development of paw edoema generated by carrageenan in rats and enhanced response latency to thermal pain in rats. The ulcerogenic activity of the leaves is mediated by the successive inhibition of the enzymes involved for prostaglandine formation from arachidonic acid<sup>15</sup>.

***Tamarandus indica***: *Tamarindus indica* seed coat methanolic extract Linn dosages of 100 mg per kg and 200 mg per kg were administered orally to rats of various groups. The usual treatment for these gastric ulcer models was ranitidine at a dose of 50 mg per kg. The studies analyze the antiulcer potential of alcohol, ibuprofen, and pyloric ligation-induced gastric lesions<sup>14</sup>.

***Pterocarpus marsupium var***: The authors evaluated the “vulnerability of gastric mucosa to ulceration in non-insulin-dependent diabetes mellitus (NIDDM was produced in 5-day-old rat pups by administering streptozotocin (70 mg/kg, i.p)) rats vis-à-vis the protective effects of the methanolic extract of *Pterocarpus marsupium* heartwood (PMS, an antidiabetic herbal plant)”<sup>19</sup>.

The traditional medicinal plants were typically used for different antiulcer activity, antidiabetic, anticancer, antioxidant, anti-tuberculosis, Anti-inflammatory, hormone balancing, antifertility effect, antiallergic, antiparasitic, cough suppressant, blood purifier, carminative, hypotensive and ulcers. However, all these plants have been reported to have antiulcer properties. The detail pharmacological properties are shown in **Table 2**.

**TABLE 2: PHYTOCHEMISTRY AND PHARMACOLOGY OF SEVERAL ANTIULCER PLANTS**

S. no.	Botanical Name	Family	Local Name/ Common Name	Gondi/ Madiya Name	Plant Part Used	Extracts Used For Anti-Ulceractivity	Phytoconstituents	Pharmacological Activity	Ref.
1	Adathoa Vasica	Acanthaceae	Vasaka.	Adulsa	Leaves, Flowers, Fruit, Roots	Induced by Ethanol Leaves Extract	l-vasicinone, deoxyvasicine, maiontone, vasicinolone and vasicinol, Main constituent of Vasicinone Alkaloids	Anti-Inflammatory, Antimicrobial, Antioxidant, Expectorant, Antispasmodic and Anti Ulcer	Chavhan 2014 <sup>14</sup> , Shrivastava et al 2006 <sup>20</sup>
2	Barleria Prionitisl. Ssp.	Acanthaceae	Katekorante.	Sonerimarrha	Leaves, Root, Bark, Stem and Flowers	Methanol Extract of Leaves	Barlenoside, acetylbarlerine, barlerine, and balarenone and some common secondary metabolites such as lupeol, β- vanillic acid, sitosterol, and syringic acid. Glycosides, steroids, tannins and flavonoids.	Antibacterial, Anticancer, Antifungal, Antiviral, Antifertility, Anti-inflammatory, Antioxidant, Enzyme Inhibitory, Anti Ulcer Hepatoprotective, Antihypertensive, Anticataract	Khonde et al 2016 <sup>15</sup> , Singh et al 2017 <sup>21</sup> , Manjusha et al 2013 <sup>22</sup>



3	Andrographis Paniculata.	Acanthaceae.	Kalmegh, Green Chiratta	Bhuilimb	Leaves, Root, Whole Part.	Hydroalcoholic Extract of Whole Part	shanzhiside methyl ester, Iridoid glycosides, barlerin "Andrographolide, bioactive compound- ent-labdane diterpenoids, twelve flavonoids, and two quinic acid, xanthone, noriridoids, andrographidoids A, B, C, D, and E"	Anti-Inflammatory, Anti Viral, Anti Pyretic, Immuno Stimulatory, Hepato Protective, Cardio Protective and Anti Ulcer.	Dange 2017 <sup>16</sup> , Saranya and Geetha 2011 <sup>23</sup>
4	Aloe Barbadosensis.	Aloeaceae.	Aloe Vera	Korphad	Leaves.	Induced by Ethanol Leaves Extract.	It comprises about 200 ingredients, including enzymes, vital amino acids, glucose, and others.	Anti-Oxidant, Anti-Inflammatory, Mucus Secreting, Cytoprotective or Healing Activities & Anti Ulcer	Chavhan 2014 <sup>14</sup> , Shrestha et al 2016 <sup>24</sup>
5	Achyranthus Aspera L. Var. Aspera.	Amaranthaceae.	Kuthri	Kuthrimarrha	Root, Bar, Leaves, Whole Plant.	Ethanol Extract of Leaves.[25]	Saponines, oleanolic acid, amino acids and hentriacontane, dihydroxyheptacosan-4-on-27-cyclohexylheptacosan-7-ol. aliphatic dihydroxyketone 36, 37	Obstetrics And Gynaecology., For Snake Bites The Ground Root Is Given With Water Until The Patient Vomits Andregains Consciousness, Antiulcer.	Khonde et al 2016 <sup>15</sup> , Maury et al 2012 <sup>25</sup>
6	Amaranthus Spinosus L.	Amaranthaceae.	Kathematha Or Chavlichi Bhaj	Doggelkusari	Leaves, Whole Plants	Ethanol Extract of Whole Plants	flavonoids, Alkaloids, glycosides, steroids, phenolic acids, amino acids, lipids, saponins, terpenoids, Anthriquinone derivatives, $\beta$ -sitosterol, volatile oils, organic acids, betalains, stigmasterol, catechuic tannins, linoleic acid, rutin, polyuronides, and carotenoids	Anti-Inflammatory, Antibacterial, Antimicrobial, Antidiuretic, Antimalarial, And Antiviral Agent And In Hepatic Disorders, Antiulcer	Khonde et al 2016 <sup>15</sup> , Hussain et al 2009 <sup>26</sup>
7	Spinacia Oleracea L.	Amaranthaceae, Chenopodiaceae	Spinach	Palak.	Leaves	Water Extract by Leaves	Flavonoid- Quercetin, magnesium, anisenese, calcium, vitamin A, vitamin K, and folic acid. Presence of different carotenoids such as lutein, $\beta$ -carotene, violaxanthin, 9-(Z)-neoxanthin	Hypoglycemic, Anti-Inflammation, Antipyretic, Anti-Diuretic, Maturant, Laxative, Digestible, Anthelmintic, Urinary Concretion, Anti Allergic, Lumbago, Antifungal, Antiemetic, Antiulcer.	Kore et al 2011 <sup>27</sup> , Khonde et al 2016 <sup>15</sup> ,
8	Semicarpus Anacardium.	Anacardiaceae.	Marking Nut	Biba	Seed	Methanolic Extract Of Seed	Flavonoids such as tetrahydroamentoflavone (THA), jeediflavanone, semicarpou-flavonone, galluf flavonone, nallaflavonone, semecarpeti and anacardioflavonone along with other phenolic compounds such as bhilawanols and anacardic acids have been reported.	Antioxidant, Anti-Inflammatory, Anti-Cancer, Antibacterial, Anti-Rheumatic, Anthelminthic And Antiulcer Activities	Kumar et al 2011 <sup>28</sup> , Chavhan 2014 <sup>14</sup>
9	Mangifera Indica.	Anacardiaceae.	Mangoes	Amba	Leaves, Fruits, Stem Bark, Heartwood And Roots.	Petroleum Ether And Ethanol Extracts of Leaves.	Macronutrients , phenolic, polyphenol, pigments, and volatile, Carbohydrates, amino acids include lysine, phenylalanine, leucine, cysteine, arginine, valine, and methionine, lipid, pigments -chlorophylls (a and b) and carotenoids, organic acids	Antioxidant, Anti-Allergic, Anti-Inflammatory, Antitumour, Antidiabetic, Antidegenerative, Wound Healing, Hepatoprotective, Hypotensive, Cardiotonic, Antiviral, Antibacterial, Antifungal, Antiparasitic, Gastroprotective And Antiulcer Activities.	Chavhan 2014 <sup>14</sup> , Prabhu and Rajan 2015 <sup>29</sup>
10	Buchnanian Lanjan.	Anacardiaceae	Charoli Nut.	Char.	Leaves, Bark, And Seed.[30, 31]	Methanolic Extract of Leaves.[31]	Flavonoids, saponins, tannins, triterpenoids, Phenols, kaempferol-7-o <sup>2</sup> glucosides, quercetin-3 rahmnoglucoside,	Wound Healing, Antidiabetic, Antihyperlipidemic, Antioxidant, Antidiarrheal, Anti-	Chavhan 2014 <sup>14</sup> , Rai et al 2016 <sup>30</sup> , Banerjee

							quercetin, kaemferol, gallic acid, including a new glycoside, and myricetin-3'-rhmnoside-3 galactoside, fibres, carbohydrates, mineral, fats, vitamin. [30,31]	Inflammatory , Antiulcer And Antimicrobial Medicinal Activities.[30,31]	and Bandyop adhyay 2015 <sup>31</sup>
11	<i>Annonas quamosa</i> L.	Annonaceae.	Shitaphal.	Shitaphalmarrha	Fruit, Root, Leaves, Seed.	Aqueous Extract of Leaves.	1-tritriaccontanol , (+)-o-methyl armepavine , N-methyl corydaldine , lanuginosone , (+)anomuricine, isocorydine, N-methyl-6, 7- dimethoxy isoquinolone , 6,7- dimethoxy-2- methyl iosquinolinium, 13-sitosterol and 3-sitosterol-3-043-D-glucopyranoside	Anti-Tumor, Anti-Diabetic Anti Ulcer and Anti-Lipidaemic Activity	Madhu et al 2012 <sup>32</sup> , Khonde et al 2016 <sup>15</sup> ,
12	<i>Centella asiatica</i> (L.)	Apiaceae.	Jalbrahmi.	Brahmimarrha.	Leaves, Flower, Roots Whole Plant.	Water Extract by Whole Plant.	Saponins ( triterpenoids), asiaticosides, brahmoxide and brahminoside, glycosides isothankuniside , thankuniside , Centelloside, sterols, flavonoids, abundant tannins , essential acid, phytosterols, mucilages, resins, free aminoacids, fatty acids.	Sedative And Anxiolytic, Antidepressant, Antiepileptic, Cognitive And Antioxidant, Gastric Ulcer, Antinociceptive, Anti-Inflammatory.	Khonde et al 2016 <sup>15</sup> , Gohil et al 2010 <sup>33</sup>
13	<i>Coriandrum sativum</i> L	Apiaceae.	Dhanyaka.	Dhane.	Seed, Leaves, Flower and Fruit.	Pet Ethar by Whole Plant.[	Essential oil, terpenoids, tannins, reducing sugars, phenolics, alkaloids, flavonoids, fatty acids, sterols and glycosides. proteins, oils, carbohydrates, fibers and vitamins. "monoterpenes, $\alpha$ -pinene, limpnene, $\gamma$ -terpinene, p-cymene, citronellol, geraniol, borneol, dihydrocoriandrin, coriandrin, coriandroneA-E".	Anxiolytic, Antidepressant, Sedative-Hypnotic, Anticonvulsant, Memory Enhancemen, "Diuretic, Antioxidant Activity, Anti-Diabetic Anti-Microbial Activity, Anti-Convulsant Activity, Anti Mutagenic, Anthelmintic, Antiulcer, Activity".	Khonde et al 2016 <sup>15</sup> , Khare et al 2019 <sup>34</sup>
14	<i>Carissa Congesta</i> Wight Var. <i>Congesta</i> . Or <i>Carissa Carandas</i> .	Apocynaceae.	<i>Carissa Carandas</i> Linn.	Karvand.	Bark, Leaves, Roots, Fruits, Fruit Rind, Seeds.	Ethanollic Leaves Extract.	"lignan, carinol, 2-acetyl phenol, sesquiterpenes (carissone, carindone), lupeol, 16 $\beta$ -hydroxybetulinic acid, $\beta$ -sitosterol, $\alpha$ -amyrin, $\beta$ -sitosterol glycoside, and des-Nmethylnoracronycine, triterpenoid, tannins, carisol, epimer of $\alpha$ -amyrin, linalool, carissic acid, $\beta$ -caryophyllene, ursolic acid, carinol, ascorbic acid, lupeol, and $\beta$ sitosterol".	Anti-Cancer, Anti-Inflammatory, Anti-Convulsant, Anti-Oxidant, Analgesic, Anthelmintic Activity, Anti-Ulcer, Cardiovascular, Anti-Nociceptive, Anti-Diabetic, Antipyretic, Anti Ulcer Neuropharmacological, Hepatoprotective, Diuretic Activities.	Khonde et al 2016 <sup>15</sup> , Begum et al 2019 <sup>35</sup> , Singh and Uppal 2015 <sup>36</sup>
15	<i>Catharanthus Roseus</i> (L).	Apocynaceae.	Jaganthi,Sadafuli.	Pungarmarrha	Flower, Root, Leaves, Whole Plant.	Methanolic Extracts of Leaves.	Alkaloid, Carbohydrates, Saponins, Serpentine, Ajmaline, Catharanthine, Vindoline, Vindolinine, Vincalencoblastine, Leurosidine and Vincristine.	Oliguria, Haematuria, Diabetes Mellitus, Menstural Disorders, Hypertension, Leukaemia,Wound Healing, Ulcers.	Khonde et al 2016 <sup>15</sup> , Mahathi et al 2013 <sup>37</sup>
16	<i>Alstonea Scholaris</i> .	Apocyanaceae.	Devil Tree.	Saptarni.	Bark, Leaves, Fruits.	Ethanollic Extract of A. Scholaris Leaves.	Alkaloids, leucoanthocyanins, coumarins, flavonoids, reducing sugars, simple phenolics, saponins, steroids, and tannins.	Antibacterial Activity, Analgesic, Anti-Inflammatory, Antidiabetic, Anticancer, Antihyperlipidemic, Anti-Arthritic, Antioxidant,	Chavhan 2014 <sup>14</sup> , Haritha et al 2019 <sup>38</sup>

17	Calatropis Procera.	Apocynaceae.	Madar.	Rui.	Root, Leaves, Bark, Flower, Milky Latex.	Chloroform Extract and Hydroalcoholic Extract of Stem Bark.	Leaf extract contain the eight elements such as Cu, Zn, Fe, Ca, Cr, Mn and Cd. Flavonoid glycoside, lignan glycoside, cardenolides, anthocyanins, and triterpenoids, Cardenolides, proceragenin.	Anti-Ulcer, Antitubercular, Antifertility, Ameliorating, Hepatoprotective. Anti-Epilepsy, Anti-Inflammatory, Arthritis, Antibacterial, Antifungal, Anthelmintic, Loss Of Appetite, Anti Ulcer.	Tour et al 2011 <sup>39</sup> , Khonde et al 2016 <sup>15</sup>
18	Gymnema Sylvestre R.Br (Retz.).	Asclepiadaceae.	Gurmarbooti.	Gudmar.	Leaves, Whole Plant.	Methanolic Extracts of Leaves.	Saponins, glycosides, sterols, alkaloids, carbohydrates, resins, flavonoids, tannins, proteins, triterpenoids, phenolic compound pentriacontane, phytin, hentriacontane, d-quercitol, gymnemic acids (antisweet compound).	Antidiabetic, Stomachic, Stimulant, Laxative And Diuretic, Jaundice, Dyspepsia, Parageusia, Hepatosplenomegaly, Constipation, Helminthiasis, Anti Ulcer, Amenorrhea, Biliousness, Furunculosis And As An Antidote-Snake Bites.	Khonde et al 2016 <sup>15</sup> , Yasa et al 2012 <sup>40</sup>
19	Tridax Procumbens L.	Asteraceae.	Ghamra.	Kambarmodi.	Leaves, Stem, Flower, And Roots.	Ethanollic Leaves Extract.	“Alkaloids, carotenoids, steroids, flavonoids (catechins and flavones), saponins and tannins, lipid constituents, fatty acid derivatives, sterols, luteolin, glucoluteolin, quercetin, isoquercetin and fumaric acid, copper, iron, manganese, sodium and zinc and other trace minerals such as magnesium, phosphorous, selenium potassium, and calcium”.	“Ntiioxidant, Anti-Bacterial, Anti-Microbial, Anti-Inflammatory, Vasorelaxant, Anti-Leishmanial, Mosquitocidal, Anti Ulcer, Antioxidant, Anti-Hepatic, Anti-Arthritic, Anti-Diabetic, Anti-Cancer, Anti-Hypertensive, Immunomodulatory, Wound Healing, Waste Water Treatment”	Chavhan 2014 <sup>14</sup> , Obochi et al 2015 <sup>42</sup> , Ashwlyan et al 2018 <sup>43</sup>
20	Calendula Officinalis L.	Asteraceae/Compositae.	Marigold.	Zendu.	Leaves, Flowers.	Ethanollic Leaves Extract.	Terpenoids, carotenoids, flavonoids, glycosides, steroids and sterols, quines, volatileoil,, amino acids, Coumarins, Quinones, Carbohydrates, Lipids, loliolide (calendin), calendulin and paraffins.	Analgesic, Anti-Diabetic, Anti-Ulcer, Anti-Inflammatory, Anti-Tumor, Antiviral And Anti-Genotoxic, Anti-Inflammatory.	Ashwlyan et al 2018 <sup>43</sup> , Wadekar and Tondre 2015 <sup>17</sup>
21	Ageratum Conyzoides L.	Asteraceae/Compositae.	Billygoat-Weed.	Osadi.	Whole Plant.	Ethanol Extract of Whole Plant.	Alkaloids, resins, saponins, tannins, glycosides, flavonoids. kaempferol, quercetin, saponin, scutellarein, eupalestin, chromene, stigmaterol, pyrrolizidinic alkaloids, ageratochromene derivatives, alkane, hexametoxyflavone, Ageconyfavones A, B, and C.	Anti Ulcer, Cardiovascular Activities, Antibacterial And Wound Healing Properties, Analgesic And Anti-Inflammatory Activities, As Well As Antifungal, Antioxidant, And Nematicidal Activities.	Wadekar and Tondre 2015 <sup>17</sup> , Aladdin et al 2017 <sup>44</sup>
22	Sphaeranthus Indicus L	Asteraceae.	Mundi.	Gorakhmundi/ Godhurl.	Whole Plant.	Ethanol Extracts of Whole Plant.	Terpenoids, flavonoids and steroids, methylchavicol, hentriacontane, sesquiterpene lactone, 2-hydroxycostic acid, sesquiterpen glycoside, sphaeranthanolide, 7-hydroxylated eudesmanolides.	Anti Ulcer, Antimicrobial, Wound Healing, Anti Arthritics, Immuno-stimulant, Immuno-modulatory, Antioxidant Anxiolytic, Neuroleptic, Antifeedant, Piscicidal, Haemolytic, Ovicidal And Larvicidal.	Wadekar and Tondre 2015 <sup>17</sup> , Mahajan et al 2015 <sup>45</sup> , Jagtap & Mukherjee 2013 <sup>19</sup>
23	Xanthium Strumarium L.	Asteraceae/Compositae.	Cepa Caballo.	Vinchu.	Aerial Parts.	Me <sub>2</sub> CO Extracted by Aerial Parts.	The main compounds in the EO were cis-β-guaiene, borneol, limonene, bornyl acetate, β-cubebene, sabinene,	Antimicrobial, Antibacterial, Antifungal, Scolicidal, Anti-Inflammatory, Antidiuretic,	Wadekar and Tondre 2015 <sup>17</sup> , Favier et

24	Helianthus Annuus L.	Asteraceae / Compositae.	Surajmukhi.	Suryaphool.	Seed, Leaves.	Hydroalcoholic Extracts of Leaves.	phytol , camphene , $\beta$ -selinene, $\alpha$ -cubebene, $\beta$ -caryophyllene , $\alpha$ -pinene and xanthinin.	Antileishmanial, Anticancer, Antitrypanosomal , Hypo-glycemic, Anthelmintic , Antiulcerogenic. Antiinflammatory, Analgesic, Antiplasmodial, Antimicrobial, Central Nervous, Antidiabetic, Anti-Ulcer, Antidiarrheal, Anti-Obesity, Reproductive, Anticancer, Antihistaminic, Antioxidant, Hepato- , Nephro- And Cardio-Protective.	al 2005 <sup>46</sup> , Sharifi et al 2015 <sup>47</sup>	Wadekar and Tondre 2015 <sup>17</sup> , Ali 2018 <sup>48</sup>
25	Balanites Aegyptica.	Balanitaceae / Zygophyllaceae.	Desert Date.	Hingna.	Leaves, Flowers, Stem Bark, Seed.	Methanolic Extract of Bark.	“Protein, flavonoid, carbohydrate, lipid, alkaloid, saponin, and organic acid furanocoumarin bergapten, dihydrofuranocoumarin D-marmesin, quercetin-3-rutinoid; bergapten, marmesin, beta-sitosterol, and beta-sitosterol glucoside, balanitin-1,-2, and -3, Balanitoside yamogenin”.	Antihelmintic, Antibacterial, Antivenin, Anticancer, Anti-Inflammatory, Analgesic “Antinociceptive, Antidiabetic, Antiviral Wound Healing, Hypocholesterolemic And Diuretic Activity”, Anti Ulcer.	Saboo et al 2014 <sup>49</sup> , Chavhan 2014 <sup>14</sup> Khonde et al 2016 <sup>15</sup>	
26	Opuntia elatior Mill.	Cactaceae	Nagphani	Nagphanimarrha	Stem, Fruit, Phylloclade, Flowers, Thorn, Leaves, Whole Plant.	Ethanol Extract of Stem.[50]	Betanin pigment, flavonoids, total phenolic, carbohydrates, flavonone, tannins, sterols, proteins, pectin, citric acid and vitamin sitosterol, opuntiol and opuntiol acetate.	Antioxidant, Anti-Microbial, Antileukemic, Anti-Ulcer, Haematinic, Anti-Inflammatory, Analgesic, Anti-Leukemic.	Khonde et al 2016 <sup>15</sup> , Prajapati & Acharya 2016 <sup>50</sup>	
27	Caesalpinia Bonducella Flem. Syn. C. Bounduc(L.)Roxb., C. Crista L.	Caesalpinaceae.	Nata Karanja.	Sagargoti.	Leaves, Seed.	Methanolic Extract of Leaves.	Bonducin, saponin, starch, sucrose, proteins, “an enzyme, two phytosterols namely sitosterol and heptacosane, fatty acids such as palmitic, stearic, oleic, lignoceric, lonolenic acids. It contains $\alpha$ -, $\beta$ -, $\gamma$ -, $\delta$ - and $\psi$ - caesalpins, caesalpin-F and amino acids”.	Anti-Inflammatory, Anthelmintic, Antipyretic, Antidiuretic, Anticonvulsant, Antibacterial, Anti-Anaphylactic, Antidiarrheal, Antiviral, Antiestrogenic, Antiasthmatic, Antiamoebic, Hepatoprotective & Antiulcer.	Patil et al 2010 <sup>51</sup> , Tiwari 2017 <sup>18</sup>	
28	Cassia Fistula L.	Caesalpinaceae.	Bahava(Amalatas).	Bahavamarrha.	Leaf, Seed, Bark.	Ethanol Extract of Leaf.	Tannins, flavonoids, glycosides, carbohydrates, Linoleic, Oxyanthra-quinones, Anthraquinones, Sennosides A B, Ceryl Alcohol, Kaempferol, Bianthraquinone Glycosides, Fistulin, Phytol , 2-Hexadecanone.	Hepatoprotective, Anti-Inflammatory, Antitussive, Antifungal, Hypoglycemic, Antiviral, Anticancer, Wounds Healing, Antiulcer, And Antibacterial, Antiulcer.	Ali 2014 <sup>48</sup> , Khonde et al 2016 <sup>15</sup>	
29	Capparis Zeylanica.	Capparidiaceae.	Indian Caper.	Waghathi/Warakli.	Root, Bark, Fruits, Leaves, Fruits, Seeds.	Ethanol Extract of Root.	Alkaloids, saponins glycosides, flavonoids, terpenoids, tannins, proteins, carbohydrates, phytosterol, acids, mucilage, E-Octadec-7-en-5-ynic acid, fatty acid.	Antifungal, Anti-Inflammatory, Antidiabetic, Antihyperlipidemic, Antioxidant, Antioxidant, Antineoplastic, Anti-Ulcer, Anti-Inflammatory and Anti-Microbial.	Chavhan 2014 <sup>14</sup> , Jagtap & Mukherjee 2013 <sup>19</sup> , Mishra & Singh 2011 <sup>53</sup> , Vema et al 2017 <sup>54</sup>	



30	Celastrus Paniculata.	Celastraceae	Malkangani or Jyotishmati.	Dhimarwel	Seed Oil.	Solubilized In 1 Ml of (5%) Dimethyl Sulfoxide (DMSO).	Alkaloids, glycosides, coumarins, tannins, carbohydrates, fixed oil, flavonoids, saponins, steroids, and triterpenoids. sesquiterpene alkaloids celastrine, malkanguniol and paniculatin.	Sedative and hepnotic, Antidepressant, Diaphoretic, Emetic, Antiulcer, Mosquito Repellent, And Tranquilizing Properties.	Chavhan 2014 <sup>14</sup> , Palle et al 2017 <sup>55</sup>
31	Anogeissus Latifolia.	Combretaceae.	Dhawa.	Dhawda.	Bark.	Hydroalcoholic Extract of Bark.	Flavonoids, triterpenoids like 3-β-hydroxy28-acetyltaraxaren and β-sitosterol, (+)-leucocyanidin. ellagic acids and two new glycosides of ellagic and flavellagic acids gallotannins.	Antioxidant And Hepatoprotective, Antiulcer And Antimicrobial, Wound Healing, Anthelmintic, Gum Exudates, Antimicrobial And Antifungal.	Chavhan 2014 <sup>14</sup> , Singh et al 2010 <sup>56</sup>
32	Terminalia Bellirica (Gaertn.) Roxb.	Combretaceae.	Vibhitaki.	Behada.	Fruit, Bark, Unripe Fruit.	Methanolic Extract of Fruits.	Triterpenoids- belleric acid, β-sitosterol, bellericoside, saponin glycosides, and bellericanin. polyphenols, lignans, and a fixed yellow oil , corilagin and chebulic acid. Fleshy fruit pulp contains tannin.	Antidiabetic, Antioxidant, Anthelmintic, Wound Healing, Antimicrobial, Hepatoprotective, Anti-diarrhoeal, Antiulcer, Antiplatelet, Antithrombotic, Anticancer , Cardioprotective, Antihyperlipidemic.	Singh et al 2018 <sup>56</sup> , Khonde et al 2016 <sup>15</sup>
33	Terminalia Chebula Retz.	Combretaceae.	Abhaya.	Hirda.	Fruit, Bark.	Hydroalcoholic Extract of Fruit.	“Chebulagic acid, chebulic acid and chebulinic acid, tannic acid, gallic acid, ethyl gallate, ellagic acid, sugar, chebulanin, corilagin terflavin, triterpenoids (chebupentol, terminoic acid, arjugenin), and steroids”.	Laxative, Hypolipidemic, Antioxidant, Hepatoprotectant, Antiviral, Antibacterial, Antidiabetes, Anticancerand Antiulcer.	Khonde et al 2016 <sup>15</sup> , Sharma et al 2011 <sup>58</sup>
34	Operculina Turpethum (L.)Silva.Manso.	Convolvulaceae.	Transparent Wood Rose.	Bhoigongal.	Root, Stem Bark And Leaves.	Hydroalcoholic and Methanolic Extracts of Stem Bark.	Glycoside resin, glycosides (Scopoletin, turpethinic acid A, B, C, D, and E), triterpenes (betulinic acid, betulin, lupeol), polyhydroxylated indolizidine alkaloid sitosterol	Antiproliferativ, Anticancer, Antimicrobial, Antidiabetic, Anti-inflammatory, Anti-hepatotoxic, Antidiarrhoeal, Antispasmodic, Antibacterial, Antiulcer.	Ignatius et al 2013 <sup>59</sup> , Tiwari 2017 <sup>18</sup>
35	Cuscuta Reflexa Roxb.	Convolvulaceae, Cuscutaceae.	Adharwel.	Adhrwelmarra.	Whole Plant.	Alcoholic And Aqueous Crude Extracts.	Carbohydrates, fats, glycosides, fixed oils, flavonoids, saponins, tannins, alkaloids and sterols.	Expectorant, Carminative, Tonic, Anthelmintic, Antiulcer, Diuretic, Blood Purifier And Lessens Inflammation.	Khonde et al 2016 <sup>15</sup> , Prakash et al 2016 <sup>60</sup>
36	Coccinia Grandis L. Voigt.	Cucurbitaceae.	Tondale.	Tondalemarrha.	Leaves, Stem, Whole Plant.	Ethanollic, Aqueous and total Aqueous Extracts of Leaf.	Resins, alkaloids, Aspartic acid, fatty acids, flavonoids, Glutamic Acid, Asparagine, Tyrosine, Phenylalanine, Histidine, Threonine, Valine, “steroids, tannins, saponins, ellagic acid, phenols, lignans, glycosides, and triterpenoids, Triterpenoid, saponin coccinoside, Flavonoid glycoside ombuin 3-o-arabino furanoside”.	Analgesic, Anti-inflammatory, Antidyslipidemic, Antipyretic, Antimicrobial, Hypoglycemic, Antiulcer, Antidiabetic, Antioxidant, Hepatoprotective, Antitussive, Anticancer, Anti-Nociceptive, Anti-Diabetic, Hypolipidemic, Antibacterial.	Khonde et al 2016 <sup>15</sup> , Mathews & Sunny 2019 <sup>61</sup>
37	Momordica Charantia.	Cucurbitaceae.	Balsam Pear.	Karella.	Fruit, Seeds And Leaves.	Alcohol and Water Extract of Fruit.	Tannins, carbohydrates, terpenoids, sterols, flavonoids, resins, glycosides, saponins, phylobatamins, anthraquinones, amino acids, fatty acids and	Antidiabetic, Antiulcer, Neuroprotective, Antimalarial, Anti-Obesogenic, Antioxidant, Antimicrobial, Anti-inflammatory, Anticancer.	de Oliveira et al 2018 <sup>62</sup> , Chavhan 2014 <sup>14</sup> , Rao et al

38	Citrullus Colocynthis	Cucurbitaceae.	Colocynth.	Indryan.	Root, Stem, Leaf, Fruits, And Seeds.	Aqueous and Ethanolic Extracts of Fruits.	phenolic compounds. Saponins, carbohydrates, tannins, glycosides, alkaloids, flavonoids, essential oils, gums and mucilages.	Antioxidant, Antimicrobial, Anti-Diabetic, Anti-Hyperlipidemic, Analgesic, Anti-Ulcer, Anticonvulsant And Insecticidal.	2011 <sup>63</sup> , Chavhan 2014 <sup>14</sup> , Dhakad et al 2017 <sup>64</sup>
39	Diospyros Melanoxylon.	Ebenaceae.	Coromandel Ebony.	Tendu.	Leaves.	Hydroalcoholic Extract of Leaves.	Alkaloids, carbohydrates, flavonoids, aminoacids, glycosides, tannins, proteins, steroids, saponins.	Diabetes, Anaemia, anti-inflammation, Dyspepsia, Diarrhoea, Scabies, Hypotensive and Used As Carminative, Laxative, Diuretic, Astringent, Antiulcer.	Chavhan 2014 <sup>14</sup> , Rao et al 2013 <sup>63</sup>
40	Phyllanthus Emblica.	Euphorbiaceae.	Indian Gooseberry.	Awala.	Fruit.	Water Extract by Fruit.	Tannins, alkaloids, phenolic compounds, amino acids, carbohydrates, vitamins and organic acids.	Anti-Oxidant, Wound Healing, Anti-Inflammatory, Astringent, Antidiarrheal, Anti-Dysenteric, Anti-Scorbutic, Antiulcer.	Chavhan 2014 <sup>14</sup> , Pal 2018 <sup>66</sup>
41	Ricinus Communis.	Euphorbiaceae.	Palm of Christ.	Yerandi.	Leaf, Root, Seed.	Seed Oil.	Steroids, saponins, alkaloids- ricinine and Ndemethylricinine, flavonoids, and glycosides, six flavones: glycosides kaempferol-3-O-β-D-Xylopyranoside.	Antifertility, Antioxidant, Antiimplantation, Antinociceptive, Anticancer, Antiulcer, Antidiabetic, Hepatoprotective, Antimicrobial, Insecticidal, Antihistaminic, Antiasthmatic.	Chavhan 2014 <sup>14</sup> , Kumar 2017 <sup>67</sup> , Tiwari 2017 <sup>18</sup>
42	Jatropha Gossypifolia	Euphorbiaceae.	Ratanjoti.	Chandra Jyoti.	All Parts.	Methanol Extract of Whole Parts.	Jatrophene, jatrophine, jatropholones A and B (diterpenes), jatrophatrione, cyclogessine A, cyanidin (pentose glycoside), trihydroxy ketone, and diosphenol.	Anti-Ulcer, Anti-Tumor, Anti-Inflammatory, Antinociceptive, Piles, Leprosy, Eczema, Carbuncles, Hypotensive, Vasorelaxant, and Antimicrobial Treatment.	Chavhan 2014 <sup>14</sup> , Vijayakumar et al 2016 <sup>68</sup>
43	Jatropha Curcas L.	Euphorbiaceae.	Chandrajyoti.	Kadlavimarrha.	Latex, Root, Seed, Stem, Leaves	Methanolic Extract of Leaves.	Diterpenoids, alkaloids, sesquiterpenoids, lignans, phenols, flavonoids, coumarins and cyclic peptides.	Anti-Inflammatory, Anticancer, Antioxidant, Antimicrobial, Antiviral, Anticoagulant, Antidiabetic, Analgesic And Abortifacient Effects, Hepatoprotective, Antiulcer.	Khonde et al 2016 <sup>15</sup> , Abdelgadir & Staden 2013 <sup>69</sup> , Jaikummar et al 2010 <sup>70</sup>
44	Phyllanthus Urinaria L.	Euphorbiaceae.	Bhuiawla.	Bhuiawlamarrha	Whole Plant, Fruit, Latex.	Methanolic Extract of Leaves	Flavonoids, lignin, alkaloids, polyphenols, tannins, terpenoids, coumarins and saponins have been recognized from various parts.	Antiinflammatory, Analgesic, Gastroprotective, Anti-Diabetic, Antiulcer, Hepatoprotective, Anti-Malarial and Antispasmodic.	Khonde et al 2016 <sup>14</sup> , Mostofa et al 2017 <sup>71</sup>
45	Cassia Tora.	Fabaceae.	Sickle Pod.	Tarota.	Leaf, Seed, Root, Whole Plant.	Hydroalcoholic Extract of Cassia Tora Linn.	Anthraquinone glycosides, Naphthopyrone glycosides, Phenolic compounds, Flavonoids.	Antibacterial, Antioxidant, Anthelmintic, Antidiabetic, Anticancer, Antiestrogenic, Antigenotoxic, Hypotensive, Antishigellosis, Antiulcer, Hypolipidemic, Anti-Mutagenic, Hepatoprotective, Immunostimulatory.	Chavhan 2014 <sup>14</sup> , Gulia & Choudhary 2011 <sup>72</sup> , Pawar & D'mello 2011 <sup>73</sup> , Devhare & Gokhale 2022 <sup>132</sup>
46	Pithecolobium Dulce.	Fabaceae.	Jungal Jalebi.	Chich Bilai.	Bark, Fruit, Seeds, Peel, Tree, Leaves.	Hydroalcoholic Fruit Extract.	The phenols, flavonoids, and saponins, steroid, saponin, lipids, glycosides, phospholipids, glycolipids, and	Adulticidal, Anti-Diabetic, Anti-Hyperlipidemic, Anti-Ulcer, Nephroprotective, Anti-Venom, Anti-Diarrheal, Anti-Oxidant,	Chavhan 2014 <sup>14</sup> , Murugesan et al 2019 <sup>74</sup>

47	Butea Monosperma	Fabaceae.	Dhak.	Palas.	Flowers, Seeds, Barks, Fruits, Leaves.	Methanolic Extract of Bark.	polysaccharides are present. Alkaloids, phenolic compounds, amino acids, glycosides, steroids, "coreopsin, isocoreopsin, sulphurein, butein, butin, isobutrin, monospermoside and isomonospermoside, auronones, chalcones, flavonoids (palasitrin, prunetin)".	Anti-Bacterial, Anti-Fungal. Hepatoprotective, Antifertility, Antifilarial, Anti-diabetic, "Anticonvulsant, Antiviral, Anthelmintic, Anticancer, Antifungal, Antimicrobial, Antiestrogenic, Antiinflammatory, Antioxidant, Antiulcer, Antidiarrhoeal, Osteogenic, Antimycobacterial, and Osteoprotective".	Chavhan 2014 <sup>14</sup> , Tiwari et al 2019 <sup>75</sup>
48	Pongamia Pinnata.	Fabaceae.	Karanjimarrh.	Karanj.	Seed, Bark, Leaves, Roots, Fruits and Sprouts.	Methanolic Extract of Leaves and Methanolic Extract of Roots.	Flevonide, Sterols, fatty acid, beta-sitosteryl acetate, galactoside, a lactoside, sucrose, Karangin, pongamol, pongagalabrone, pongapin, pinnatin, kanjone, pongol.	Antibacterial, Anti-Inflammatory, Analgesic, Antihyperammonemic, Antinociceptive, Antipyretic, Anti-Dyslipidemic, Anti-Convulsant, Anti-ulcer	Chavhan 2014 <sup>14</sup> , Pandey et al 2013 <sup>76</sup> , Chopade et al 2008 <sup>77</sup> , Yadav et al 2011 <sup>78</sup>
49	Tephrosia Purpurea.	Fabaceae.	Sarapunkha.	Tagrse Fool.	Root, Whole Plant.	Administration of Ethanol and Aqueous Root Extracts.	Semiglabin, rutin, pongamole, lanceolatin A and B, lupeol, and $\beta$ -sitosterol. Flavonoids.	Antimicrobial, Anti-Inflammatory, Antiulcer, Antioxidant, Hepatoprotective, Antiallergic, Antidiabetic, Antitumor.	Chavhan 2014 <sup>14</sup> , Palbag et al 2014 <sup>79</sup> , Despande et al 2003 <sup>80</sup> , Sonawane et al 2011 <sup>81</sup>
50	Mucuna Pruriens.	Fabaceae.	Velvet Bean.	Kachkur.	Seed.	Aqueous Extract of Seed.	Alkaloids, flavonoids, tannins, and phenolic compounds.	Antivenom, Antidiabetic, Antioxidant, Anti-inflammatory, Neuroprotective, Antimicrobial, Antiulcer.	Chavhan 2014 <sup>14</sup> , Masand et al 2016 <sup>82</sup>
51	Abrus Precatorius L.	Fabaceae.	Gunja.	Gunjamarrha.	Leaves, Stem, Bark, Seed, Root.	Leaves Extract.	Flavonoids(vitexin), Abricin, abrin, abrisin, abrine, abraline, abrasine, abruslectone, abrusic acid, anthocyanins.	Antidiabetic, Antioxidative, Antibacterial, Antiulcer, Anti-Inflammatory Analgesic Activity.	Khonde et al 2016 <sup>15</sup> , Nagda et al 2019 <sup>83</sup>
52	Cajanus Cajan (L).	Fabaceae.	Arhar.	Toor.	Leaves, Seeds, Root.	Ethanollic Leaves Extract.	Flavanoids(Orientin), tannins, pinostrobin, cajaninstilbene acid, vitexin and orientin.	Anti-Inflammatory, Neuroprotective, Antiviral, Antidibetic, Antiulcer, Anti-Plasmodial, Antibacterial, Anticancer, Antioxidant, Hepatoprotective.	Khonde et al 2016 <sup>15</sup> , Dange 2017 <sup>16</sup> , Mansoor et al 2015 <sup>84</sup>
53	Vigna Mungo (L.) Hepper.	Fabaceae.	Uddachi Dal.	Mung.	Seed, Pulses, Leaves.	Extract of Whole Plant and Leaves Extract.	Flavonoids (Robinin, Kaempferol 3-rutinoside and Kaempferol 7-rhamnoside), saponins, tannins, alkaloids, vitamin C and steroids.	Antidiabetic, Antioxidant, Hypolipidemic, Antifungal, Immunostimulatory, Anti-microbial, Antiulcer, Anti-osteoarthritic.	Khonde et al 2016 <sup>15</sup> , Zaheer et al 2020 <sup>85</sup> , Chandolu et al 2018 <sup>86</sup>
54	Tamarandus Indica.	Fabaceae.	Tamarind.	Chinch.	Seeds, Root, Leaves, Bark And Fruits.	Methanolic Extract of Seed.	Invert sugar, oleic acid, linoleic acid, citric acid, piperolic acid, vitamin, lupeol, orientin, vitexin, Campesterol, phenylalanine, leucine, potassium, Tannins, saponins, glycosides.	Hypolipidemic, Hepatoprotective, Weight Reducing, Antioxidant, Antimicrobial, Antiulcer, Anthelmintic, Analgesic & Anti-Inflammatory.	Chavhan 2014 <sup>14</sup> , Kalra et al 2011 <sup>88</sup> , Zohrameena et al 2017 <sup>89</sup>
55	Pterocarpus Marsupium Var.	Fabaceae.	Bijasal Or Indian Kino.	Biwala.	Flowers, Gum, Bark,	Methanolic Extract of Pterocarpus	Flavonoid, protein, pentosan, pterosupin, isoliquiritigenin,	CNS Activity, Antidiabetic, Hepatoprotective, Anti-	Jagtap & Mukherjee

	Marsupium Roxb.				Heartwood.	Marsupium Heartwood.	pseudobaptigenin, erythrodiol-3-monoacetate, liquiritigenin, garbanzol, 5-de-oxykaempferol, marsupol, carpusin, propterol, propterol B, marsupinol.	Inflammatory, Antioxidant, Antiulcer, Cardiotoxic, Antihyperglycemic, Antianalgesic, Antioxidant, Antimicrobial, Antihyperglycemic.	2013 <sup>19</sup> , Gairola et al 2010 <sup>90</sup> , Joshi et al 2004 <sup>91</sup>
56	Ocimum Sanctum.	Lamiaceae.	Holy Basil.	Tulsi.	Leaves, Flower.	Extract of Leaves.	Phenolics, terpenoids, flavonoids, phenyl propanoids, fatty acid derivatives, fixed oil, essential oil, and steroids.	Anticancer, Anti-inflammatory, Antiulcer, Antistress, Antioxidant, Antidiabetic and Antileishmanicidal Activities.	Chavhan 2014 <sup>14</sup> , Dange 2017 <sup>16</sup> , Vaseem et al 2015 <sup>92</sup> , Singh & Chaudhari 2018 <sup>93</sup>
57	Leucas Aspera.	Lamiaceae.	Thumbai.	Guma.	Leaves.	Methanolic Extract of Leaves.	Triterpenoids, sterols, ursolic acid, 3-sitosterol nicotine, asperphenamate, oleanolic acid, apigenin, maslinic acid, isololiolide, linifolioside, nectandrin B, macelignan, chrysoeriol, acacetin, apigenin.	Antioxidant, Anti-Arthritic, Antibacterial, And Anti-Diabetic Activities, Antiulcer.	Chavhan 2014 <sup>14</sup> , Augustine et al 2014 <sup>94</sup>
58	Vitex Negundo L.	Lamiaceae.	Nilgudi.	Vandamarrha.	Root, Leaves And Bark.	Ethanol Extract of Leaves.	$\alpha$ -pinene, limonene, Bicyclogermacrene, while the fruit oil contained $\alpha$ -pinene, bicyclogermacrene, limonene.	Antiinflammatory, Anti-Ulcer, Anti-Oxidant, And Hepatoprotective.	Khonde et al 2016 <sup>15</sup> , Vangoori et al 2013 <sup>95</sup>
59	Careya Arborea, Roxb.	Lecythidiaceae.	Padmaka.	Kumbhi.	Bark.	Ethanol Extract of Stem Bark.	Taraxerol and saponinins, hexacosanol, quercetin, ellagic acid, taraxerol, $\beta$ -sitosterol and $\alpha$ -sitosterol, valoneic acid, dilactone, triterpenoid, ester, careaborin and $\beta$ -amyrin.	Cytotoxic, Antioxidant, Gastroprotective, Antileishmanial, Antiulcer, Antidiarrhoeal	Tiwari 2017 <sup>18</sup> , Kumar et al 2013 <sup>96</sup>
60	Bahunia Reacemosa.	Leguminosae / Caesalpiniaceae.	Bauhinia Vahlii.	Apta.	Fruit, Bark, Leaves, Seed, Flower, Buds, Whole Plant.	Methanolic Extract of Flower Buds & Fruit Powder Of Plant.	Carbohydrates, alkaloids, steroids, glycosides, tannins, saponins, phenolic compounds, flavonoids, protein, oil and fats.	Antifilarial, Abortifacient, Anti-Anxiety, Anthelmintic, Antimalarial, Antimicrobial, Antipyretic, Antihistaminic, Anti-Oxidant, Anti-inflammatory, Analgesic, Antitumor, Antiulcerogenic Hepatoprotective.	Chavhan 2014 <sup>14</sup> , Azizur et al 2015 <sup>97</sup>
61	Allium Sativum.	Liliaceae.	Garlic.	Lasun.	Whole Plant.	Bulb Juice.	Sulfur compounds including allicin, aliin, ajoene, allylpropl, diallyl, trisulfide, sallylcysteine, steroids, vinylidithiines, peptides, flavonoids, terpenoids, and phenols.	Anti-Cancer, Antimicrobial, Hepatoprotective, Anthelmintics, Antifungal, Cardiovascular, Anti-inflammatory, Antioxidant, Anti-Hypertensive, Antiulcer.	Chavhan 2014 <sup>14</sup> , Tesfaye & Mengesh 2015 <sup>98</sup> , Azamthulla et al 2009 <sup>99</sup>
62	Asparagus Racemosus Willd. Var. Javanica.	Liliaceae/Asparagaceae.	Satawarmul.	Satavari.	Roots, Leaves, Flowers, Fruits.	Shatavari Root Powder.	Alkaloids, saponins, tannins, flavonoids, phenolic compounds, shatavarin I, shatavarin II, shatavarin, shatavarin IV, proteins, starch.	Gastrointestinal, Galactagogue, Anticancer, Immunomodulatory, Cardiovascular, Antioxidant, Antiulcer, Antidiarrhoeal, Antitussive Effect.	Khonde et al 2016 <sup>15</sup> , Dhengale et al 2018 <sup>100</sup>
63	Punica Granatum L.	Lythraceae/Loosestrife	Pomegranate (Anar).	Darim.	Fruit, Barks, Leaves, Flowers and Seed.	Hydroalcohol Fruit Peel Extract.	Ellagic acid, punicic acid, ellagitannins (including punicalagins), flavonoids, anthocyanins, anthocyanidins, and	Anticarcinogenic, Antioxidant, Antibacterial, Antifungal, Anti-inflammatory, Reproductive,	Khonde et al 2016 <sup>15</sup> , Garachh et al



64	Lawsonia Inermis L.	Lythraceae.	Henna Or Mhendi.	Mehandi.	Root, Stem, Leaf, Flower Pod and Seed.	Ethanollic Extract of Leaf.	estrogenic flavonols and flavones. “2-Hydro xy-1, 4-naphthoquinone, alkaloids, saponins, steroids, cardiac glycosides, flavonoids, tannins and reducing sugars, gallic acid, glucose, mannitol, fat, resin and mucilage”.	Neuroprotective, Antiulcer, Antiatherogenic, Antihyperglycemic. “Antiinflammatory, Antipyretic, Antiarthritic, Antibacterial, Antifungal, Antiviral, Antimalarial, Antidiabetic, Abortifacient, Antioxidant, Anticancer, Antifertility, Antiulcer, Antitrypanosomal, Antisickling, Nematicidal”.	2012 <sup>101</sup> , Moghadam et al 2014 <sup>102</sup> Khonde et al 2016 <sup>15</sup> , Ponugoti 2018 <sup>103</sup>
65	Michelia Champaca.	Magnoliaceae.	Sonchampa/ Champaca.	Chamapa.	Bark, Flower, Leaves and Roots.	Aqueous and Alcoholic Extracts of Flowers and Leaves.	Alkaloids, flavonoids, saponins, sterols, triterpenoids, tannins, liriodenine, michelia-A, parthenolide and guaianolides, methyl anthranilate, methyl linoleate, stigmasterol and 3β-16α-dihydroxy-5-cholestene-21-al	Analgesic, Antipyretic, Anti-Inflammatory, Antimicrobial, Anthelmintic, Anticancer, Wound Healing, Antihyperglycemic, Antiulcer, Antioxidant And Antifertility Activities.	Chavhan 2014 <sup>14</sup> , Raja & Koduru 2014 <sup>104</sup>
66	Malvastrum Coromandelianum (L.) Garcke.	Malvaceae.	Kharenti Or Bala.	Ran-Chikna (Shendri).	Leaf, Flower, Leaves, Whole Plant.	Ethanollic Extract of Whole Plan.	Flavonoids, tannins, and glycinebetaine.	Antipyretic, Antiulcer, Anti-Inflammatory, Analgesic, Antipyretic, Antibacterial and Antinociceptive Activity.	Khonde et al 2016 <sup>15</sup> , Balekar et al 2012 <sup>105</sup>
67	Soymida Febrifuga A.Juss.	Meliaceae.	Indian Redwood.	Rohan.	Leaf.	Methanollic Extracts of Leaf.	Phenol, Flavonoid, Lupeol, β - Sitosterol, Quercetin, Quercetin-3-O-galactoside, Methyl angolensate, Tetraterpenoids, Tannins, quinones.	Antimicrobial, Antioxidant, Activities, Anticancer Activity, Antiplasmodial Activity. Cytotoxic, Antiulcer Activity.	Tiwari 2017 <sup>18</sup> , Saravanan et al 2012 <sup>106</sup>
68	Tinospora Cordifolia.	Menispermaceae	Amrita Or Guduchi.	Gulvel.	Whole Plant.	Ethanol and Aqueous Extracts of Whole Plant.	Alkaloids, glycosides, steroids and terpenoids.	Anti-toxin, Antidiabetic, Anticancer, Antioxidant, Immunomodulatory, Antimicrobial, Hepatoprotective, Antiulcer.	Chavhan 2014 <sup>14</sup> , Tiwari et al 2018 <sup>107</sup>
69	Acacia Catechu.	Mimosaceae	Catechu, Katha.	Khair.	Leaves, Flowers, Root, Seeds, Bark.	Ethanollic and Aqueous Extract of Roots.	Flavonoids, tannins, epicatechin gallate, catechin, epigallocatechin, (-) epicatechin, phloroglucin, protocatechuic acid, quercetin, poriferasterol glucosides, lupeol, procyanidin, kaempferol, dihydrokaempferol.	Antidiarrheal, Antioxidant, Antipyretic, Antibacterial, Antileprosy, Antimicrobial, Antifertility, Antiulcer, Anticancer, Chronic Renal Failure, Hepatoprotective.	Chavhan 2014 <sup>14</sup> , Alambavan et al 2015 <sup>108</sup>
70	Mimosa Pudica.	Mimosaceae	Lajawanti.	Lajadu.	Leaves, Whole Plant.	Methanol, Chloroform, Diethyl Ether Extract of Leaves.	Alkaloid mimosine, tannins, non- protein amino acid (mimosin), mucilage, flavonoid C-glycosides, sterols, terpenoids, tannins and fatty acids.	Anti – Ulcer, Anti – Inflammatory, Anti-Microbial, Anti – Malaria, Antifungal, Carcinogenic, Anti-Convulsant, Anti-Diarrheal, Antifertility.	Chavhan 2014 <sup>14</sup> , Johnson et al 2014 <sup>109</sup>
71	Ficus Racemosa.	Moraceae.	Gular.	Umbar.	Leaves, Bark, Fruits, Latex, All Parts	Ethanollic Extract of Fruit.	Flavonoids, alkaloids, triterpenoids (basically lanosterol), and tannins glucanol, taraxasterol, tiglic acid, lupeol acetate, hydrocarbons, euphol, friedelin, isoeuphorbol.	Antidiabetic, Antifilarial, Antifungal, Antioxidant, Anti-Inflammatory, Antipyretic, Antibacterial, Antidiarrhoeal, Hypolipidemic, And Hepatoprotection, Antiulcer.	Chavhan 2014 <sup>14</sup> , Yadav et al 2015 <sup>110</sup>
72	Ficus Bengalensis	Moraceae.	Bargad.	Wad.	Leaves, Root, Seeds, Leaf, And Fruits.	Aqueous Extract of Leaf.	Alkaloids, Carbohydrates, Glycoside, Terpenoids, Saponins, Phenols, Xanthoproteic, Flavonoids, Tannins.	Antioxidant, Anti-Tumor, Anthelmintic, Anti-Antidiarrhoeal, Antidiabetic And Ameliorative, Hypolipidemic, Analgesic & Antipyretic, Antiulcer Nflammation, Burning	Chavhan 2014 <sup>14</sup> , Kulshreshtha et al 2011 <sup>111</sup>
73	Ficus	Moraceae.	Arasa Maram.	Pipal.	Root,	Ethanollic	tannins, flavonoids,		Chavhan

	Religiosa.				Leaf.	Extract of Leaf.	saponins, glycosides alkaloids, and sterols/triterpenes.	Sensation, Analgesic, Anti-Bacterial, Anti-Diabetic and Anti-Oxidant, Antiulcer.	2014 <sup>14</sup> , Gregory et al 2013 <sup>112</sup>
74	Moringa Oleifera Lam.	Moringaceae	“Drumstick” or “Horse Radish Tree”.	Shevga	Droot, Leaves, Fruit, Bark, Seeds, Flowers, All Part.	Ethanollic Root-Bark Extract.	Carbohydrate, tannins, flavonoids, alkaloids, phenols, proteins and amino acids, cardiac glycoside.	Antitumor, Antipyretic, Antiinflammatory, Antihypertensive, Diuretic, Antidiabetic, Antioxidant, Antispasmodic, Antiulcer, Antifungal and Antibacterial, Activities, Antibacterial, Antiulcer, Antisteroids, Antipyretic, Antiviral, Anti-Inflammatory, Diabetes, Restenosis and Atherosclerosis.	Khonde et al 2016 <sup>15</sup> , Choudhary et al 2013 <sup>113</sup>
75	Nelumbo Nucifera L.	Nelumbonaceae.	Kamal.	Kamalmarra.	Flower, Leaf.	Hydroalcoholic Leaf Extract.	Alkaloids, flavonoids, tannins, phytosterols and saponins.	Antibacterial, Antiulcer, Antisteroids, Antipyretic, Antiviral, Anti-Inflammatory, Diabetes, Restenosis and Atherosclerosis.	Khonde et al 2016 <sup>15</sup> , Kishore et al 2017 <sup>114</sup>
76	Biophytam Sensitivum.	Oxalidaceae.	Lajjaluka.	Lajari.	Leaves.	Ethanollic Extract of Leaves.	Amentoflavone, biapigenin36, proanthocyanidins and phenolic compounds.	Hypoglycemic, Antiulcer, Immunomodulatory, Chemo Protective, Apoptotic, Anti-Inflammatory, Cellmediated Immuneresponse, Anti-tumor.	Chavhan 2014 <sup>14</sup> , Banerjee et al 2014 <sup>115</sup>
77	Sesamum Indicum L.	Pedaliaceae.	Til.	Tilmarrha.	Seed,Lea ve.	Ethanollic Extract of Seed.	Lignans, sesamol, sesamin, pinoresinol and lariciresinol. Sesamol (SES).	Atherosclerosis, Antiulcer, Hypertension, Wound Healing, Antioxidant, Antiinflammatory.	Khonde et al 2016 <sup>15</sup> , Sori et al 2018 <sup>116</sup>
78	Hemidesmus Indicus.	Periplocaceae./ Asclepidiaceae	Ananta And Sariva.	Khobar-Bel.	Root.	Aqueous Ethanollic Extracts of Roots.	Steroids, essential oils, phytosterols, hemidesterol, saponins, Coumarins, tannic acid, triterpenoid, triterpenoid, flavanoid, saponins.	Anti Inflammatory, Anti – Microbial, Antioxidant, Anti-ulcerogenic, Anti Hyperlipidemic, Otoprotective, Hepatoprotective, Anti-thrombotic, Anti-Carcinogenic.	Chavhan 2014 <sup>14</sup> , Aneja et al 2008 <sup>117</sup>
79	Cyanodon Dactylon.	Poaceae	Bermuda Grass.	Durva, Harari. [	Grass,Ro ot, Whole Plant.	Alcoholic Extract of Bermuda Grass.	Flavanoids, triterpenoids, alkaloids, proteins, terpenoides, steroids, glycosides, saponins, tannins, phytosterols, reducing sugars, resins, carbohydrates, volatile oils and fixed oils.	Cardiovascular, Antidiabetic, Gastrointestinal, Antioxidant, Antiallergic, Immunological, Anti-inflammatory, Antipyretic, Analgesic, Anticancer, Dermatological, Diuretic, Aniulcer.	Chavhan 2014 <sup>14</sup> , Patil et al 2005 <sup>118</sup>
80	Portulaca Oleracea L.	Portulacaceae.	Purslane.	Ghol.	Whole Plant.	Aqueous and Ethanollic Extracts.	Flavonoids, fatty acids, alkaloids, polysaccharides, sterols, terpenoids, proteins vitamins and minerals.	Neuroprotective, Antidiabetic, Antimicrobial, Anti-Inflammatory, Antiulcerogenic Antioxidant,and Anticancer Activities.	Khonde et al 2016 <sup>15</sup> , Zhou et al 2015 <sup>119</sup> , Karimi et al 2004 <sup>120</sup>
81	Manilkara Hexandra.	Rubiaceae.	Dubard.	Khirani.	Bark.	Ethyl Acetate Extract of Stem Bark.	Alkaloids, saponin, terpenoids, and phenolic compounds such as tannins, flavanoids, and lignins.	Anti–Inflammatory, Antiulcer, Aphrodisiac, Alexipharmic, Anthelmintic, Antibacterial.	Chavhan 2014 <sup>14</sup> , Shah et al 2004 <sup>121</sup>
82	Gardenia Gummifefera.	Rubiaceae.	Dekamali.	Vidgu.	Whole Plant.	Methanollic Extracts of Whole Plant.	Flavonoids, tannins, alkaloids, saponins, glycosides, and Sterols, terpenes.	Anthelmintic, Antispasmodic, Carminative, Expectorant, Diaphoretic, Anti-epileptic, Peripheral and Central Analgesic, Cardiotonic, Antioxidant, Antiulcer and Antihyperlipidemic.	Chavhan 2014 <sup>14</sup> , Sabbani et al 2015 <sup>122</sup>
83	Citrus Limon (L). Burm. F.	Rutaceae.	Lemon	Limbu.	Fruit.	Fruit Juice.	phenolic compounds as well as vitamins, essential oils minerals, dietary fiber, and carotenoids	Cancer and as Antidote for Poison and Venom. Hypolipidemic, Antiulcer, Gastric Disorders	Khonde et al 2016 <sup>15</sup> , Bhavitavya et al 2012 <sup>123</sup>

84	Sapindus Trifoliatus.	Sapindaceae.	Kusum.	Kusummarrha.	Seed.	Seed Extract.	sugars, saponins, genins, fatty acids, trifoliosides, carbohydrates, phenolic acids, steroids, and tri terpenoids	Spermicidal, Anti-Inflammatory, Anti Cancer, Anthelmintic, Antiulcer Activity	Khonde et al 2016 <sup>15</sup> , Jagannadha et al 2012 <sup>124</sup>
85	Schleichera Oleosa (Lour.) Oken.	Sapindaceae.	Kosam.	Kojab.	Bark, Leaves, Fruits, Seed Oil.	Ethanollic Extract of Stem Barks.	Phenolic compounds, fatty acids, tannins, hydroxyl sterols and Triterpenoids	Antiinflammatory, Antiulcer, Anticancer, Antibacterial and Antioxidant Effects	Jagtap & Mukherjee 2013 <sup>19</sup> , Goswami & Singh 2017 <sup>125</sup>
86	Madhuca Indica.	Sapotaceae	Indian Butter Tree	Moha.	Leaves, Fruit, Root.	Aqueous Extract of Leaves.	Myricetin, quercetin, myricitrin, triterpenoid and quercitrin, isoflavone, oleanolic acid, $\beta$ -sitosterol, $\beta$ -carotene and xanthophylls, erythrodiol	Antiulcer, Rheumatism, Itches, Bleeding, Spongy Gum, Tonsillitis and Diabetes Mellitus	Chavhan 2014 <sup>14</sup> , Mohod & Bodhanekar 2013 <sup>126</sup>
87	Scoparia Dulcis L.	Scrophulariaceae	Ranmethi/ Ghadtulsh	Ranmethimarrha	Aerial Parts, Leaf, Root, Complete Plant.	Water Extract of Whole Aerial Parts.	flavones, steroids, terpenes, "scopadulcic acids A and B, scopadulciol, scopadiol, scoparic acids A-C, scopadulin, and betulinic acid"	Antibacterial, Analgesic, Antidiabetic, Anti-Inflammatory, Antiviral, Antifungal, Antiherpetic, Antiseptic, Antispasmodic, Cytotoxic, Emmenagogue, Emollient, Pectoral, Expectorant, Refrigerant and Vulnerary, Antiulcer.	Khonde et al 2016 <sup>15</sup> , Babinco vaa et al 2008 <sup>127</sup>
88	Smilax Zeylanica.	Smilacaceae	Chopachinee	Sehdire.	Leaves And Roots.	Hydroalcoholi c Extract of Root	Steroidal saponins, phytosterol, starch, sarsapic acid, minerals, diosgenin present. tannin, diosgenin, saponin, heteroside, parillin, potassium nitrate. The saponins on hydrolysis gives sapogenins, sarsasapogenins, aspergenin	Antidiabetic, Anticancer, Anthelmintic, Antioxidant, Antiepileptic, Pesticidal, Hepatoprotective, Antiulcer, Immunomodulatory, Antibacterial and Antarthritic	Tiwari 2017 <sup>18</sup> , Sharma et al 2018 <sup>128</sup>
89	Hybanthus Enneaspermus.	Violaceae	Ratanpurus.	Lendoli.	Whole Plant.	Ethanollic Extract of Whole Plant	Aurantiamide acetate, isoaborninol, sitosterol and Triterpen	Anti-Inflammatory, Antitussive, Antiplasmodial, Antimicrobial, Antiulcer, Anti-Convulsant and Freeradical Scavenging Activity.	Jagtap & Mukherjee 2013 <sup>19</sup> , Sahoo et al 2012 <sup>129</sup>
90	Curcuma Longa.	Zingiberaceae	Turmeric	Halkand/Halad	Leaves, Root, Rhizome	Methanolic Extract of Leaves	Alkaloids, glycosides, carbohydrates, fixed oils physterols, and fats, saponins, phenolic compounds, tannins, proteins and amino acids, flavonoids, terpenoids, sesquiterpenes, diterpenes, triterpenoids, and sterols	Anticancer, Antidiabetic, Antioxidant, Hypolipidemic, Antiulcer, Anti-Fertility, Antiinflammatory, Antimicrobial, Anti-Venom, Hepatoprotective, Nephroprotective.	Chavhan 2014 <sup>14</sup> , Sujane et al 2018 <sup>130</sup> , Chanda & Ramachandra 2019 <sup>131</sup>

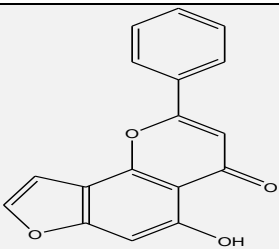
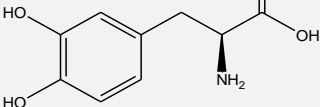
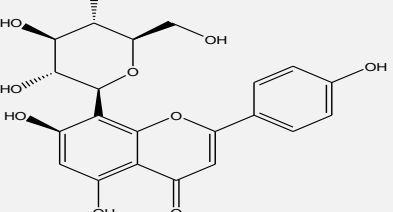
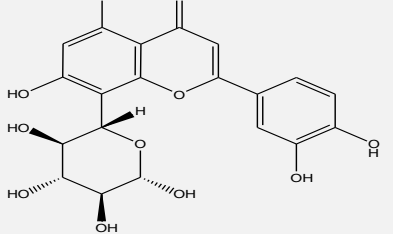
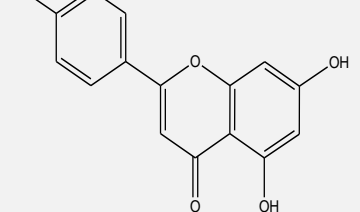
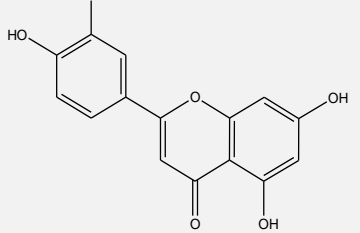
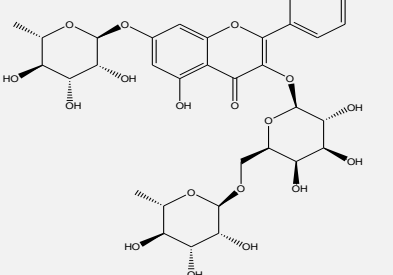
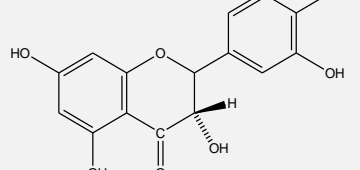
**Phytochemistry of Antiulcer Plants:** Ulcer protective effect of some active constituents isolated from herbal drugs *Cassia tora*, *Pithecellobium dulce*, *Butea monosperma*, *Pongamia pinnata*, *Tephrosia purpurea*, *Mucuna pruriens*, *Abrus precatorius*, *Cajanus cajan*, *Vigna mungo*, *Tamarandus indica*, *Pterocarpus marsupium* var. (Fabaceae family). The

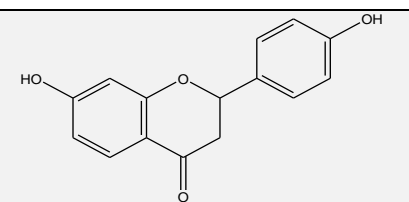
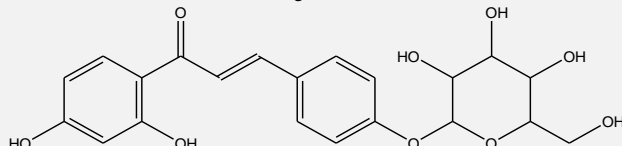
phytoconstituents such as Kaempferol, Quercetin, Phycion, Gallic Acid, Ellagic acid, Dulcitol, Butrin, Karangin, Ponganpin, Pongaglabol, Levodopa, Vitexin, Orientin, Apigenin, Luteolin, Robinin, Epicatechin, Liquiritigenin, Liquiritigenin, Isoliquiritin had isolated by several researchers and reported to possess antiulcer properties. The structure is given in **Table 3**.

**TABLE 3: IMPORTANT CHEMICAL STRUCTURES REPORTED OF SOME ANTIULCER COMPONENTS FROM PLANTS**

Name	Chemical Formula	Structure
Kaempferol	$C_{15}H_{10}O_6$	
Quercetin	$C_{15}H_{10}O_7$	
Physcion	$C_{16}H_{12}O_5$	
Gallic Acid	$C_7H_6O_5$ or $C_6H_2(OH)_3COOH$	
Ellagic acid	$C_{14}H_6O_8$	
Dulcitol	$C_6H_{14}O_6$	
Butrin	$C_{27}H_{32}O_{15}$	
Karangin	$C_{18}H_{12}O_4$	
Ponganpin	$C_{19}H_{12}O_6$	



Pongaglabol	$C_{17}H_{10}O_4$	
Levodopa	$C_9H_{11}NO_4$	
Vitexin	$C_{21}H_{20}O_{10}$	
Orientin	$C_{21}H_{20}O_{11}$	
Apigenin	$C_{15}H_{10}O_5$	
Luteolin	$C_{15}H_{10}O_6$	
Robinin	$C_{33}H_{40}O_{19}$	
Epicatechin	$C_{15}H_{14}O_6$	

Liquiritigenin	$C_{15}H_{12}O_4$	
Isoliquiritin	$C_{21}H_{22}O_9$	

**CONCLUSIONS:** The present findings are probably the first record of medicinal plants in the Fabaceae of Gadchiroli region of Maharashtra using standard research protocols. A total of 90 plant species under 11 genera of the Fabaceae family have been documented, which are used for treating different diseases. The existing examine can be a initial contribution to the medicinal plant life of this area using trendy research strategies that specialize in medicinal vegetation and their neighborhood uses for healthcare. This healthcare understanding is transmitted orally from one era to generation. These certain facts could be useful for the pharmacognosist, ethnobotanist, botanist, and pharmacologist for the gathering and identity of the plant for their studies work. Findings from the study can even assist the government in providing you with a plan to set up the natural enterprise across the location to improve the economic popularity of the location similarly.

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**CONFLICTS OF INTEREST:** Declared None

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