

A Review: Therapeutic Potential of Medicinal Plants

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Abstract

Since ancient times, humans have been intimately acquainted with plants, utilizing them for various purposes over the centuries. This enduring bond between humans and plants has led to many plants being recognized for their medicinal properties. India, blessed with a rich diversity of medicinal flora, is often hailed as the world's Medicinal Garden. Numerous traditional medical systems, including Ayurveda, Sidda, Unani, homeopathy, yoga, and naturopathy, are practiced throughout the nation.. Medicinal plants play a crucial role in pharmaceutical research, either through the extraction and direct application of active medicinal compounds, the creation of partially synthetic medications or the search for pharmacologically active synthetic chemicals in natural items. The utilization of medicinal plants serves as a significant resource for treating, curing, and preventing numerous ailments, drawing from the accumulated knowledge derived from the intimate interaction between individuals and their environment. This review aims to compile information on traditional medicinal plants with potential therapeutic benefits, including details on the parts used and chemical constituents present in each plant.

Keywords: Medicinal Plants, Phytochemicals, Therapeutic Potential, Traditional Medicine.

Introduction

Nature encompasses everything except for plants, directly or indirectly influencing plant life and serving as a crucial component of the global ecosystem. Each facet of nature is termed a natural element, and plants thrive within specific parameters of temperature, soil moisture. While these factors impact all plants, traditional practices like fertilization, watering, and pesticide application can significantly influence their growth⁽¹⁾.

Since the dawn of humanity, humans have interacted with plants, utilizing them in various capacities over time. Early humans, while seeking sustenance and addressing ailments, began to discern plants suitable for medicinal purposes, marking the inception of medicinal plant usage. This relationship has deepened over time, with many plants being recognized for their medicinal properties. The advancement of disease management knowledge has led to a proliferation of medicinal discoveries derived from plants. With an abundance of medicinal plants, India is sometimes Commonly called the "Medicinal Garden of the World," and Indian Vedas record the use of herbs in medicine for a wide range of conditions. The widespread practice and acceptance of traditional medical systems around

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the world, including Ayurveda, Siddha, Unani, Homeopathy, Yoga, and Naturopathy, highlights India's distinctive role in traditional medicine⁽²⁾.

Medicinal plants are recognized for their potential pharmacological properties, making them crucial subjects of research and development in the pharmaceutical industry. Research in this field encompasses the isolation and utilization of active compounds, development of slow-release medications, and screening of natural products to create effective pharmaceuticals. Each year, the global industry for chemicals derived from plants, such as flavorings, colorants, fragrances, and medications, brings in billions of dollars. Prominent phytochemicals of historical importance in biology and medicine include the Indian Ayurvedic medication forskolin, vincristine, vinblastine, colchicine, and artemisinin, which is used to treat malaria⁽³⁾. The utilization of medicinal plants serves as a significant resource for treating, managing, and preventing numerous diseases, often drawing upon insights gleaned from the direct interaction between humans and the natural environment. Ethnobotany, a multidisciplinary science, explores the intricate relationship between medicinal plants and humans, encompassing various fields of knowledge. In India, medicinal plants find widespread use across all demographics, both within traditional medicine systems like Siddha, Ayurveda, and Unani, as well as in the pharmaceutical industry⁽⁴⁾.

Medicinal plants and their derivatives hold promise not only for improving the livelihoods of rural populations, particularly women, in an environmentally sustainable manner but also for conserving biodiversity. Around the world, traditional medical practitioners provide care for about 80% of the population. There are significant economic benefits associated with the development of traditional medicine and the utilization of plants for treating various illnesses⁽⁵⁾.

Despite challenges such as limited access to modern healthcare facilities due to factors like poverty and inadequate infrastructure, many individuals, particularly in rural areas, continue to turn to traditional medicine for common ailments. The significance of medicinal plants in the lives of individuals and societies cannot be overstated, as they provide an abundant supply of bioactive compounds that display a wide range of pharmacological actions, including antioxidative, anti-allergic, hypoglycemic, and carcinogenic effects⁽⁵⁾. Given the growing interest in natural antibacterial compounds, particularly plant extracts for food preservation, this review aims to explore commonly found plants in the Sangli region (Maharashtra) to uncover their medicinal value. It seeks to compile information on traditional medicinal plants with potential therapeutic benefits, including details on their constituents and chemical elements.

Table 01: Medicinal Plant

Sr. No.	Botanical name	Common name	family	Plant parts used	References
1.	<i>Aloe barbadensis miller</i>	Aloe vera	Liliaceae	Whole Plant	06
2.	<i>Annona squamosa</i>	Custard apple	Annonaceae	Whole Plant	07
3.	<i>Annona cherimola</i>	Cherimoya	Annonaceae	Whole Plant	08
4.	<i>Azadirachta indica</i>	Neem	Meliaceae	Whole Plant	09
5.	<i>Aegle marmelos</i>	Bel	Rutaceae	Whole Plant	10

6.	<i>Bryophyllum pinnatum</i>	Air plant	Crassulaceae	Leaves	11
7	<i>Calotropis gigantea</i>	Crown flower	Apocynaceae	Whole Plant	14
8	<i>Daucus carota</i>	Wild carrot	Apiaceae	Roots, Leaves, Seeds	15
9	<i>Embllica officinalis</i>	Embllic	Phyllanthaceae	Whole Plant	16
10	<i>Ficus carica</i>	Common fig	Moraceae	Fruits, Root	17
11	<i>Ficus benghalensis</i>	Banyan	Moraceae	Whole Plant	18
12	<i>Ficus racemosa</i>	Cluster fig	Moraceae	Whole Plant	19
13	<i>Ficus religiosa</i>	Sacred fig	Moraceae	Whole Plant	20
14	<i>Justicia adhatoda</i>	Malbar nut	Acanthaceae	Whole Plant	21
15	<i>Hibiscus Rosa-sinesis</i>	China rose	Malvaceae	Flower, Root, Leaves	22
16	<i>Lemon grass</i>	Cochin grass	Poaceae	Leaves, Root, Steam	23
17	<i>Moringa oleifira</i>	Drumstick tree	Moringaceae	Whole Plant	24
18	<i>Momordica charantia</i>	Bitter melon	Cucurbitaceae	Roots, Leaves, Fruits	25
19.	<i>Mangifera indica</i>	Mango	Anacardiaceae	Whole Plant	26
20.	<i>Manilkara zapota</i>	Sapodilla	Sapotaceae	Leaves, Flowers, Fruits	27
21.	<i>Morraya koenigii</i>	Curry tree	Rutaceae	Whole Plant	28
22.	<i>Oscimum sanctum</i>	Tulasi	Lamiaceae	Whole Plant	29
23.	<i>Passiflora foetida</i>	Wild maracuga	Passifloraceae	Stem, Flower, Fruits, Seeds	30
24	<i>Psidium guajava</i>	Guava	Myrtaceae	Whole Plant	31
25	<i>Mentha piperita</i>	Peppermint	Lamiaceae	Leaves	32
26.	<i>Syzygium cumini</i>	Jambolan	Myrtaceae	Whole Plant	33
27.	<i>Santlum album</i>	Sandalwood	Santalaceae	Heartwood(Only Central Part)	34
28.	<i>Tinospora cardifolia</i>	Giloy	Me nispermaceae	Whole Plant	35
29.	<i>Tridax procumbens</i>	Coat buttons	Asteraceae	Whole Plant	36
30.	<i>Tamarindus indica</i>	Tamarin	Fabaceae	Fruits, Seeds	37
31	<i>Zingiber officinale</i>	Ginger	Zingiberaceae	Leaves, Rhizome	38

Medicinal Plants

1. *Aloe barbadensis miller*^{16]}

Chemical constituents: Retinol, ascorbic acid, tocopherol, cyclobalamine, folic acid, and choline

are among the chemical ingredients. Enzymes include collagenase, alkaline phosphatase, lipase, peroxidase, amylase, bradykinase, carboxypeptidase, catalase, and C. Minerals

(chromium, copper, selenium, magnesium, manganese, and luteol); fatty acids (cholesterol, campesterol, β -sitosterol, and luteol); carbohydrates (glucose, fructose, and polysaccharides); and amino acids

Pharmacological Activities: Antiulcer, Antidiabetic and Wound Healing, Antihypercholestermic and Antibacterial, Antiviral, Antifungal, Antiacne, Immunomodulatory Activity, Cardiac Stimulant, Moisturizer, Skin protection from UV- A & UV-B rays, Antioxidant activity.

2. *Annona squamosa* [7]

Chemical constituents: Alkaloids: Quercetin-3-O-glucoside, Rhamnoside, Norisocoryline, Roemerine, and Aporphine Annonastatin, Asimicin, and Squamocin are the seeds. β -farnesene is an essential oil. β -pirene α -pirene Examples of Limore Acetogenins are as follows: 4-deoxyannoreticuline, Annoreticuline -9, Annosquamosins A and B cyclopeptides, Squamone, Squamotacin, 2,4 cis and trans squamoxinone, Roots - Liriodenine, Norcorydine, Isocorydine, Norushinsuniterpennes, entries en-19-oic acid and 16 α , 17-dihydroxyent-kauran-19 oic acid.

pharmacological actions: This powerful combination includes analgesic and antibacterial, anti-thyroid, anti-cancer, antimicrobial, antigenotoxic, anti-head function.

3. *Annona cherimola* [8]

Chemical constituents: Protein, carbohydrates, phenolic substances, amino acids, alkaloids, flavonoids, glycosides, saponins, and tannins. N-cis-caffeoyltyramine, dihydroine feroyltyramine, annocherine A & B, cherianoine, aromin-A. - tetramethylammonium chelamolacyclopeptide A and B, cyclooctapeptieds, tetramethylammonium chelamolacyclopeptide, thiamine, riboflavin, niacin, iron, calcium, and phosphorus, Annonaine, 3-methyl butyl 5-hydroxymethyl-2-furfural (71.82%), 3-methyl butanoate (56.69%), and methyl butanoate (69.0569) (99.056an)) (15.36%).

Pharmacological Functions: Activities include antioxidant, antidiabetic, antihyperglycemic, antimicrobial, antitumor, antianxiety, and antiparasite.

4. *Azadirachta indica* [9]

Chemical constituents: Sodium nimbinate, Azadirachtin, Nimbin, Nimbolide, Gedunin, Mahmoodin, and Nimbidin G3A; Gallic acid, (-) Epicatechin and Catechin; Margolone, Margolonone, Isomargolonone; Cyclic trisulfide; Cyclic tetrasulfides; Bclicar Polides;

Pharmacological Activities: NB-2 Peptidoglucan include analgesic, antipyretic, anti-inflammatory, antitumor, spermicidal, antifungal, antibacterial, diuretic, anti-gastric ulcer, immunomodulatory, antitumor, and antiarthritic properties.

5. *Aegle marmelos* [10]

Chemical constituents: 4- (3', 3'-dimethylallyloxy) phenyl] O -3,3- (dimethylallyl) halfordinol, N-2-methoxy-2- Alkaloids include, for example, ethylcinnamamide. Terpenoids: α -Phellandrene (56%), p-cymene (17%), Limonene (82.4%), and P-Menth-1-en-3,5-diol. Coumarins: Psoralen, Marmelide, Xanthotoxol, Methyl Ether, Xanthotoxol, Scopoletin, Scoparone, Umbelliferone, Imperatorin, Marmesin, and Isoimperatorin Phenylpropanoids include flavone glycosides, hydroxycoumarins, phenylpropene, and marmesin 3-ols.

Pharmacological activities: Numerous biological actions, such as those that are antimicrobial, antihistaminic, analgesic, and anti-inflammatory, have been discovered. and antipyretic, hepatoprotective, insecticidal, antioxidant, and immunomodulatory; these activities include testicular, cardiotoxic, anxiolytic, antidepressant, anti-stress and adaptogenic, and antifertility functions.

6. *Bryophyllum pinnatum* [11]

Chemical constituents:

Pharmacological Activity:

This plant contains the following: alkaloids, flavonoids, tannins, phenolic compounds, saponin

glycosides, and essential macroelements like calcium, magnesium, potassium, salt, and phosphorus. It also contains essential microelements such as thiamin, riboflavin, iron, zinc, niacin, and ascorbic acid. Moreover, it contains the following: 4-hydroxy-3-methoxy cinnamic acid, para-hydroxy cinnamic acid, para-hydroxy benzoic acid, syringic acid, caffeic acid, para-hydroxy cinnamic acid, para-coumaric acid, and protocatechuic acid. In addition to protocatechuic acid, plant leaves also include phosphoenolpyruvate, astragalin, luteolin, rutin, kaemferol, and quercetin. The plant also contains bufadienolides, including bryophyllin A, B, C, and bryophyllon. The leaves exhibit a range of actions in terms of their pharmacological characteristics, such as

characteristics that include antifungal, antileishmanial, anticancer, anti-ulcer, analgesic, anti-inflammatory, anthelmintic, antihistaminic, and antimutagenic. They also have central nervous system-relieving, antimicrobial, and insect-repelling properties. The leaf juice is utilized as an antioxidant and preventative because it possesses hepatoprotective qualities. In addition to treating cholera, toothaches, ulcers, kidney stones, diarrhea, and uterine contractions. It demonstrates immunomodulatory properties as well.

7. *Curcuma longa* ^[12]

Chemical constituents: gums, mucilage, phytosterol, alkaloids, carbs, and glycosides. Curcumin (60%) as well as desmethoxy, monodemethoxy, bisdemethoxy, dihydro, and cyclocurcumin. One can obtain vanillin by oxidizing curcumins. Rhizomes are steam-distilled to produce essential oils (5.8%), of which *α*-phelladrene (1%), sabinene (0.6%), There are 1%, 0.5%), 1%, 25%, and 53% of cineol, borneol, and sesquiterilipino present. Curcumin (*diferuloylmethane*) (3–4%), which has a yellow hue, is made up of curcumin I (94%), curcumin II (6%) and curcumin III (0.3%).

Pharmacological Activities: The plant's pharmacological activities include pain relief, reducing inflammation, promoting healing and

skincare, managing diabetes, combating parasites, treating respiratory diseases and urinary tract issues, protecting the liver, addressing digestive system disorders, utilizing turmeric for eye care, fighting cancer, lowering cholesterol, and affecting fertility.

8. *Orange lemon* ^[13]

Chemical constituents : Fruit juice mostly consists of sugar and fruit acids, particularly citric acid (8%). A lemon peel has two layers: The 6% essential oil present in the outer layer (pericarp, zest) is composed of limonene (90%), *α*-terpineol, gerynyl acetate, linayl, and citral (5%) and citronellal. Put another way, the inner layer, or mesocarp, is made up of bitter flavone glycosides and a variety of coumarin extracts rather than essential oils. Additionally, it has relatively no amber, sugar, or potash. After dissolving tartaric acid in water, sulfuric acid and spice (lemon oil) are added to create the imitation lemon juice. Dextrogyre oil *lemonis*. This contains 7–8% citral, a little amount of citronellal, pinene, and geraniol, which, when reduced, produces aldehydes.

Pharmacological Activities: Blood purifier, blood sugar balance, trauma, insomnia, mental and emotional eating disorders, osteoporosis, and asthma Acne, Dots and Bumps, Rheumatism, Rheumatism and Rheumatism - Related Diseases, Handle Throat Bacteria, Avoid Kidney Stones, Anti-Cancer Work

9. *Calotropis gigantea* ^[14]

Chemical constituents:

Chemicals including *α*-amyrin, *β*-amyrin, gigantol, giganteol, isogiganteol, taraxasterol and its isomeric form taraxasteryl isovalerate, taraxasteryl acetate, and wax are found in the root bark.

Pharmacological activities: a central nervous system function, an analgesic, an anti-inflammatory and antipyretic, an antidiarrheal, and an anticonvulsant calming, wound-healing, The compound possesses hepatoprotective, antitumor, antitumor activity, cytotoxic, antibacterial,

procoagulant, free release, antimicrobial, antifungal, antitussive, and antifeedant properties.

10. *Daucus carota* [15]

Chemical constituents: Alkaloids, Phenols, Essential Oils, Terpenoid and Coumarin, Carbohydrates, Flavonoids, and Phenols Crude Fat: $0.367 \pm 0.089\%$, Protein: $1.067 \pm 0.058\%$, Crude Fiber: 1.0.167 and 3.

Pharmacological Activities: Antimicrobial, cytotoxic, antioxidant, and antidiabetic hypotensive action, smooth muscle relaxant, and decrease in intraocular pressure digestive, nephroprotective, hepatoprotective, and cardiovascular a mood enhancer, Boost your memory, anti-inflammatory and wound-healing properties.

11. *Emblica officinalis* [16]

Chemical constituents: Phyllantine alkaloids, phyllantidine, Leaves include the following acids: gallic acid, chebulic acid, ellagic acid, chebulinic acid, chebulagic acid, and amlic acid. Seeds: Trace levels of essential oils, fixed lipids, and phosphatides. Concentrated fats (acetyl 2.03%, unsaturated matter 3.81%, sterol 2.70%, and saturated fat concentration of 7.5%, iodine total 139.5, saponification value 185), includes 8.78% linolenic acid, 28.40% linoleic acid, 2.15% steric acid, 2.99% palmitic acid, and 0.95% miristic acid. Bark contains proanthocyanidin, tannin, and leukodelphinidin. The roots: ellagic acid and lupeol are present. Ascorbic acid, terpenoids, flavonoids, saponins, and tannins.

Pharmacological activities: Hepatoprotective, immunomodulatory, antimicrobial, antioxidant, anti-inflammatory, radioprotective, and The hypolipidemic anti-tumor reverse transcriptase against HIV, Antidepressant, Antidiabetic, antibacterial, wound-healing, and antiulcerogenic properties. -antifungal radical function of expulsion, Larvicidal and mosquitocidal properties, insecticidal action, antimutagenic properties

12. *Ficus carica* [17]

Chemical constituents: proteins, carbohydrates, phenols, terpenes, alkaloids, tannins, glycosides, flavanoids, saponins, and coumarin. Monoterpenes: Menthol and Limonene. ..Sesquiterpenes include alloaromadurnene, α D, (+) -Ledene, s-Elemene, s-Cadinene, Copaene, β -Bourbonene, β -Elemene, α -Gurjunene, β -Caryophyllene, β -Cubebene, and α -Muuroleone. Norisoprenoid with β -Cyclocitral.

Pharmacological Activities: Cholines Antibiotics, antivirals, antiparasitic, anti-oxidants, cancer prevention, antimutagenic, anti-angiogenic, anti-inflammatory in nature and antipyretic, antidiabetic, nephro- and hepatoprotective, reproductive and endocrine, antispasmodic and antidiarrheal, antiplatelets, and antitumor activity medications are among the drugs that contain cholines.

13. *Ficus bengalensis* Linn [18]

Chemical constituents: Ketones include pentatriacontan-5-one, 6 heptatriacontene-10-one, and 20 tetratriacontene-2-one. Flavonols and flavonoids: rutin, 5, 7, quercetin-3-galactoside Dimethyl ether Rhamnoside leucoperalgonidin-3-0- α -L. Terpenoids: luteol, betulinic acid, beta sitosterol, 3-friedelanol, 20-traxasten-3-ol, and Friedelin. Coumarins. Esters: Hydroxypentacosanyl pal

Pharmacological Activities: Anesthetic and antipyretic, anti-inflammatory, hypolipidemic, anthelmintic, antibacterial, immune-modulatory, anti-depression and antiallergic, antioxidant, antidiarrheal, antiatherogenic, antidiabetic, and ameliorative Work that heals wounds, work that heals wounds, work that heals wounds.

14. *Ficus Racemosa* [19]

Chemical constituents: β -sitosterol, leucocyanidin-3-O- β -glucopyranoside, leucopelarogonidin-3-O - α -L-rhamnopyranoside, β -amyrin acetate, heglantrianol, heglantrianol acid, tetracyclic triterpenes, phytosterol, glauanol acetate, and leucoanthocyanins, leucocyanidin-3-

O- β -glucopyranoside, leucopelarogonidin-3-O - α -L-rhamnopyranoside, etc.

Pharmacological Activities: Antibacterial Activity, Anti-Inflammatory Function, Hepatoprotective Function, Memory Enhancement Function, Antioxidant Activity, Enzyme Altering Aciotensin Activity, Heart Prevention Work, Diabetes Problems, Renal Oxidative Injury, Wound Healing Work.

15. *Ficus religiosa* ^[20]

Chemical constituents : Numerous substances, such as tannins, wax, saponins, flavonoids, steroids, terpenoids, and cardiac glycosides, are found in bark. Bergapten, bergaptol, lanosterol, stigmasterol, β -sitosterol, lupen-3-one, and β -sitosterol-d-glucoside (phytos1, vitamin K1) are also present in it. 3-0- α -L-rhamnopyranoside, 3-0- β -D-glucopyranoside, lupeol, and leucopelargonidin. The campesterol is grass. α -trans bergamotene, aromadendrene, α -humulene, alloaromadendrene, germacrene, bicyclogermacrene, γ -cadinene and gam-cadinene, gam-cadinene, mytinneor, mytinneornoids, and quercetin are among the substances that might cause tannic acid, dendrolasine, α -amyrin, stigmasterol, isofucosterol, and lupeol. Tyrosine, Alanine, and Threonine are seeds.

Pharmacological activities: The properties of this substance include anti-inflammatory, anti-tubercular, analgesic, antioxidant, anticonvulsant, antimicrobial, anti-amnesic, anti-acetylcholinesterase, and proteolytic activities.

16. *Justicia adhatoda* ^[21]

Chemical constituents: Reduced sugar, anthraquinone, saponins, flavonoids, phenols, and tannins The compounds Additionally to Adhatodine, Anisotine, Vasicine, Vasicolin, Vasicoline, Hydroxypeganine, and Adhavasine, there are Vasicinone, Vasicinol, Adhatodine, Adhatonine, Adhvasinone, and Hydroxypeganine.

Pharmacological Activities: Antitussive, Abortifacient, Cardioprotective, Anticholinesterase, Anti-inflammatory,

Antimicrobial, anti-allergic, hypoglycemic activity, hepatoprotective, antioxidant, antiulcer function.

17. *Hibiscus rosa sinensis* ^[22]

Chemical constituents: One hundred grams contains the following: calcium (4.04), phosphorus (26.68), iron (1.69 mg); moisture (89.8); nitrogen (0.064), fat (0.36), crude fiber (1.56%); steroids, carbohydrates, glycosides, flavonoids, lipids, and alkaloids. Flowers contain the following: riboflavin (0.048 mg 6 corporation), apigenidin, citric acid, fructose, glucose, oxalic acid, pelargonidin, quercetin, and thiamine [0.031 mg%]. The cyclicacids stem-teraxeryl acetate, β -sitosterol, and malvalic and sterculic acids.

Pharmacological Activities: The product has the following properties: analgesic, anti-inflammatory and antipyretic, antifertility, abortifacient, anticonvulsant, antiestrogenic, anti-implantation, antispasmodic, antiovolatory, antifungal, antiviral, CNS depressant, hypoglycemia, hypoglycemia children's hormone function, and hair growth function.

18. *Medium grass* ^[23]

Chemical constituents: Root and leaf stem elements include geraniol (30.5%), citronellol (24.1%), neral (10.3%), and geranial (13.6%). Lemon grass contains the following essential oils: geranyl acetate (3.57%), trans-geraniol (3.66%), linalool (4.82%), Z-citral (28.82%), and citral (31.52%). It serves as a semisynthetic precursor to vitamin A that occurs naturally.

Pharmacological Activities : urinary tract infections, antifungal, antibacterial, antiseptic, and anti-asthmatic Preservative and pesticide, headache, and increased perspiration. It's also applied as an insect deterrent and carminative. It is now commonly utilized as a cosmetic in the creation of cosmetics and fragrances.

19. *Moringa oleifera* ^[24]

Chemical constituents: Benzyl isothiocyanate, niazimicin, pterygospermin, benzyl glucosinolate, vitamins and minerals, carotenoids.

Pharmacological Functions: Bacterial Infection, Urinary Tract Infection, Typhoid, Syphilis, Viral, Radioprotective, Anti-tumor, Anti-hypertensive, Cardiogenic, Diabetes / I -hypoglycemia, Hypocholesterolemia, Diuretic, Antipyretic, Antispasmodic, Anticonvulsant, Immunostimulant, Rheumatism, Abortifacient, Aphrodisiac activity.

20. *Momordica charantia* ^[25]

Chemical constituents: Fruits contain stable oil, free acids, phenolic compounds, alkaloids, glycosides, resins, and decreasing sugars. Foliage: 1% calcium, 4% magnesium, 7% potassium, 5% phosphorus, and 3% iron; fruits and foliage are excellent providers of B vitamins, Folate (vit. B9) 13%, vitamin B6 3%, riboflavin (vitamin B2) 4%, thiamine (vitamin B1) 4%, and niacin (vitamin B3) 2%. Alkaloid, lipid, triterpene, protein, steroid, inorganic, and phenolic mixture. Among the components of the plant are momordic acid, momordin, momordol, multiflorenol, myristic acid, nerolidol, oleanolic acid, oleic acid, and oxalic acid.

Pharmacological Functions: The following are examples of their actions: antioxidant, antidiabetic, cancer and antitumor, antimicrobial, contraceptive, anti-genotoxic, work to eliminate helminths, anti-activity against malaria, wound healing, and immune system.

21. *Mangifera Indica* ^[26]

Chemical constituents: Mango pulp contains omega-3 and 6 polyunsaturated fatty acids, carotenoids, and polyphenols. Carotenoids found in mango peels include quercetin, kaempferol, provitamin, beta-carotene, lutein, and alpha-carotene, as well as catechins, tannins, gallic acid, caffeic acid, and the unique mango xanthone known as mangiferin.

Pharmacological Activities: Antipyretic, analgesic, antitetanus, anticancer, antidiabetic, anti-inflammatory, hepatoprotective, and anti-hemorrhagic anti-ulcer. Lipid profile, anti-diarrheal, anti-bacterial, antifungal, antiviral, anti-amoebic, anti-bone resorption, and anthelmintic

antimalarial Bronchodilatory, laxative, immunoregulatory, radioprotective, cardioprotective, and osteoporosis prevention.

22. *Manilkara zapota* ^[27]

Chemical constituents: Sterols: stigmasterol, β -sterol, and saponin; Alkaloids: phenolic chemicals; -D-quercitol, methyl chlorogenate, dihydromyricetin, quercitrin, myricitrin, myricetin-3-O- α -L -ylhamosol, -galloylchlorogenate and 4-O-galloylchlorogenic acid, (+) -catechin, (-) -epicatechin, (+) -galocatechin, and gallic acid, apigenin-7-O- α -L-rhamnoside, leucodelphinidin, leucocyanidin, and leucopelargonidin, D -quercitol and Minerals- Calcium, potassium, zinc, copper, and iron. Polyphenol oxidase is an enzyme..

Pharmacological Activities:

Antibacterial activity, Antifungal activity, Antitumor activity.

23. *Murraya koenigii* ^[28]

Chemical constituents: petroleum ether, chloroform, ethyl acetate, alcohol, phenylalanine, glycine, alkaloids, flavonoids, carbohydrates, and sterols. Alkaloids: mahanimbine, girinimbine, koenioline, xynthletin, cyclomahanimbine and tetrahydromahanimbine, murrayacine, murrayazolidine, and murrayazoline. Iron, 0.166%, phosphorus, 0.082% potassium, 0.811% calcium, and vitamin C.

Pharmacological Functions: Vasodilating activity, hypocholesterolemic potential, anti-diabetic qualities, anti-ulcer, anti-diarrhea, phagocytic, analgesic and antinociceptive, anti-lipid, peroxidative, radioprotective and chemoprotective, anti-amnesic, antihelminthic, and memory-improving effects. Antibacterial efficacy, antioxidant qualities, Cytotoxic activity, skin pigmentation, and anti-tumor testing.

24. *Ocimum sanctum* ^[29]

Chemical constituents: Leaves contain eucaginal, urosolic acid, limatrol, caryophyllene, methyl, Carvicol, and estragol. Sitosterol, anthocyanins, xylose, and polysaccharides are present in oily seed oils. acid, isothymusin, isothymonin,

apigenin, and cirsimaritin. Vicenin and Orientin are flavonoids.

Pharmacological Activities Wound healing, antimicrobial, antianaphylactic, antihistamine, and mast cell stabilization Anthelmintic, anti-ulcer, cardio-protective, larvicidal, toxicological, anti-inflammatory, and antipyretic properties, as well as radioprotective, antidiabetic, antigenotoxic, antioxidant, anti-carcinogenic, and immunologic properties Pain-relieving action, Tyrosinase and elastase inhibitory action, hepatoprotective function, hypocholesterolemic impact, and antidiarrheal activity.

25. *Passiflora fetus* ^[30]

Chemical constituents: Alkaloids, flavonoids, glycosides, isovitexins, cynogenic chemicals, luteolin-7- β -d, apigenin, 2-xylovitexin, 2-xylosylsovitexin, chrysoeriol, and vitexin kaempferol, harmanen-7, harmanen-7 acid, glucose, 5-Hydroxy-4', 7-dimethoxyflavone, 4'-dimethyl ether, and Genkwanin 4'-methyl ether 5-Hydroxy, 7-O-Methylacetin, and Acacetin 7-methyl ether-7-methoxyTwo to four (methoxyphenyl) Benzopyran-4-one, or -4H-1

Pharmacological activities: Diuretics were used as astringent and expectorant for neurological illnesses, as well as in the treatment of digestive issues such as dyspepsia and diarrhea, hysteria, giddiness, and headaches. They were also used as poultices for erysipelas and inflammatory skin ailments. and spasms, to treat skin disorders that cause itching, like tinea and scabies hypotensive, antispasmodic, sedative, and anxiolytic effects

26. *Psidium guajava* ^[31]

Chemical constituents: alkaloids, glycosides, steroids, flavanoid, tannins, saponins, minerals, enzymes, proteins, sesquiterpenoid, alcohols, triterpenoid acids, leves- α -pinene, β -pinene, limonene, menthol, terpenyl acetate, isopropynel alcohol, isopropynel alcohol caryophyllene, β -bisabolene, caryophyllene oxide, β -copanene, farnesene, humulene, selinene, cardinene and curcumene, mallic acid, nerolidiol, i Estosterol, ursolic, crategolic, and guayavolic acids, cineol,

quercetin, 3-L-4, arabinofuranoside, beta-sitosterol, uvaol, oleanolic acid and ursolic acid, oleanolic acid, arjunolic acid, glucuronic acid, β -sitosterol glucoside, brahmie acid, polyphenolics. niacin, manganese, riboflavin, and thiamine. Bark tannins, ellagic acid, luectic acid, amritoside, and leucocyanidin.

Pharmacological activities: Antibacterial, Microbicidal, Analgesic, anti-inflammatory activity, cough, sedative, hepatoprotective, Antioxidant, good curative, inotropic, hypoglycemic and hypotensive, anti-stress and adaptogenic, immunomodulating, anti-prostate cancer, anti-parasitic, central nervous system (CNS) stress, hyperactive gut disorders, anti-proliferative activity.

27. Heat peppers ^[32]

Chemical constituents: Menthone (14.0–32.0%), menthyl acetate (2.8–10.0%), isopulegol (0.2%), menthol (55.0%), pulegone (4.0%), menthone (14.0–32.0%), menthofuran (1.0 – 9.0%), cineole (3.5–14.0%), limonene (1.0–5.0%), and carvone are among the chemicals found.

Pharmacological activities: Heart-related, lung-related, oral, non-invasive, gastrointestinal, antiemetic, neuropsychiatric, central nervous system stimulant, irritable, itchy, and having an effect on the mucous membranes. antispasmodic, antioxidant, antibacterial, anti-inflammatory, and decongestant properties. They also lessen muscle soreness. Diverticular disease is another condition for which it is utilized.

28. *Syzygium cumin* ^[33]

Chemical constituents: Edible pulp contains the following vitamins: C, A, riboflavin, nicotinic acid, choline, folic acid, malaic acid, sugar, amino acids, Na, K, Ca, P, Fe, Zn, and Mn. Phytosterols, essential oils, tannins, resin, jamboline, gallic acid, and seed and stem glycosides. Terpenoids in flowers.

Pharmacological activities : DNA damage, antihyperlipidemia, anti-allergic, antioxidant, antiviral, antibacterial, anti-cancer, anti-

inflammatory, and gastric ulcer.²⁹ The Santalum record

29. Santalum album^[34]

Chemical constituents : 90% or more of santalol is made up of primary sesquiterpene alcohols, CHO, notably α - and β -santalol (bp-166-1670C and b.p-177-1780C), where the α -form travels through tannins, terpenes, waxes, and resins;

hydrocarbons-santene (CH), nor-tricyclo-ekasantalene (CH), α - and β -santalenes (CH), alcohols-santenol (CHO), teresantalol (CHO), aldehydes-nor-tricyclo-kasantalal (CHO) and α - and β -santallic acids (CHO), teresantallic acids (CHO), cyclosantalal (0.21-2.26%), and isocyclo-santalene (0.11-1.47%)

Pharmacological activities: Nitric oxide expulsion activity, skin cancer prevention activity, antioxidant activity, antianginal activity, insect growth inhibitor action, antifungal activity, antibacterial activity, and antiviral activity anti-inflammatory, antipyretic, and anti-ulcerogenic properties.

30. Tinospora cordifolia^[35]

Chemical constituents: Alkaloids: choline, tinosporin, socolumbin, palmatine, tetrahydropalmatine, berberine, palmatine, tembetarine, and magnoflorine Furanoid diterpene glucoside, Magnoflorine 18-norclerodane glucoside, Tinocordiside, Similarly, E are all associated with Tinocordilofodiring Syndrome. derivatives of clerodane, furanolactone, Tinosporides, Tinosporon, and Javaterone J Makisterone A, Javaterone, Javaterone, Javaterone, Javaterone, Octacosanol, Heptacosanol, Tinocordifolin, and Giloinsterol Nonacosan-15-one Sesquiterpenoid Tetrahydrofuran (α , 4-dihydroxyl-3-methoxy-benzyl-Compound) -4 hydroxyl-3-methoxy-benz) is an example of an aliphatic compound. Jatrorrhizine

Pharmacological Activities: Immunomodulatory Activity, Anti-cancer, Anti-Angiogenic Activity, Anti-Tuberculosis, Cognition (Memory and Learning) Activity, Anti-Inflammation Work,

Wound Healing Work, Anti-Malaria Work, Anti-Allergic Rhinitis, Liver Protection Work, Anti-Tasks and Diabetes, Anti-Osteoporotic Activity, Radio Protection Work.

31. Tridax procumbens^[36]

Chemical constituents: Myristic, palmitic, arachidic, linoleic acid and tannin, linolenic acid, fumaric acid, luteolin, quercetin, oxoester, lauric acid, and beta- and alpha-sitosterol, n-hexane, procumbeothalinelin, procumbeothalin, betasitosterol, and quercetin are among the other compounds found in alkaloids, flavonoids, carotenoids, and flavonoids. Copper, zinc, sodium, calcium, and selenium are found in leaves. betulinic acid, esculetin, and oleanolic acid. Flavones include 8,3'-dihydroxy3, esculetin, betulinic acid, oleanolic acid, and puerarin.

Pharmacological Activities: Hepatoprotective, Immunomodulatory, Antidiabetic, Antimicrobial, Anti-Cancer, Anti-Septic, Insecticidal, Parasiticidal, Anti-Diarrheal, and Activities that repel insects are some of the benefits of wound healing.

32. Tamarindus indica [37]

Chemical constituents: Thirty-eight percent are carbs, twenty.6% are water, 3.1% are protein, and 0.4% are fat. Proline, tyrosine, valine, methicine, olé leucine, phenylalanine, lysine, cysteine, and tryptophan are the amino acids. fatty acids: arachidic, gadoleic, stearic, oleic, linoleic, α -linolenic, palmitic, and palmitoleic. tannins, phytic acid, hydrogen cyanide, and trypsin. Pharmacological activities include those that are cytotoxic, anti-inflammatory, antiviral, anti-fungal, anti-microbial, and moluscicidal.

33. Zingiber officinale^[38]

Chemical constituents: 1-Dehydro-3-dihydro-gingerdione, Acetoxy-6-dihydroparadol, 3,5-heptadione, 1-Dehydro-3-dihydro-gingerdione, Isogingerol, 5-Methoxy-gingerol, Methyl diacetoxy-gingerdiol, 1-Dehydro-gingerdione, Acetoxy-gingerol, Shogaol, Paradol, 1. (30-

methoxyphenol, 40-hydroxyphenyl) 7-Octen-3-one 1-(40-Hydroxy-30-methoxyphenyl), 1-(40-Hydroxy-30-methoxyphenyl) Among the compounds mentioned are 1- (omega-ferulyloxygeranyl) glycerol, p-hydroxybenzaldehyde, 3-dihydroxypropyl ester, hexacosanoic acid, beta-sitosterol palmitate, isovanillin, glycolmonopalmitate, and -7-dodecen-3-one.

Pharmacological activities: Anti-inflammatory, antifungal, analgesic, anthelmintic, cytotoxic, antibacterial, nervoprotective, larvicidal, antidiabetic, antidiarrheal, and multifunctional qualities are among its active qualities.

Conclusion :

In the future years, herbal remedies might bring in a new age in the treatment of human illnesses. Conventional medicine provides primary medical care to about 80% of the world's population. Over the past ten years, there has been a resurgence of interest in the study of medicinal plants as potential sources of herbal medicine. Plant-based natural products have long been acknowledged as significant sources of therapeutic chemicals. To find and develop novel bioactive chemicals with the potential to treat human illnesses, medicinal plants must be carefully examined. The current review's primary goal is to look for and compile data regarding traditionally used medicinal herbs that may have therapeutic value. This review also contains pertinent details about the parts that are used and the chemical components that are present in that specific plant.

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