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# MEDICINAL PLANTS OF BURDWAN DISTRICT: A BRIEF REVIEW



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**DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT  
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# CERTIFICATE

*Certified that the dissertation entitled “**Medicinal plants of Burdwan district: A brief review**” has been carried out entirely by **Sathi Chatterjee**, student of Sem VI, B.Sc (Gen) in the Department of Botany, M.U.C. Women’s College, Burdwan University, Purba Bardhaman under my supervision. It is further certified that the candidate has fulfilled all the conditions necessary for the partial fulfilment of her B.Sc. (Gen) degree achievement under this University and this work has not been submitted anywhere for any other degree to the best of my knowledge.*

**Place: Purba Bardhaman**

**Date: 19. 07.2021**



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**(Dr. Irani Biswas)**

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Place: Purba Bardhaman

Date: 19.07.2021

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# INTRODUCTION

***“Plants give us oxygen for the lungs and for the soul.” — Linda Solegato***

The term “**medicinal plant**” include various types of plants used in herbalism ("herbology" or "herbal medicine"). It is the use of plants for medicinal purposes, and the study of such uses.

The word “**herb**” has been derived from the Latin word, “*herba*” and an old French word “*herbe*”. Now a days, herb refers to any part of the plant like fruit, seed, stem, bark, flower, leaf, stigma or a root, as well as a non-woody plant. Earlier, the term “herb” was only applied to non-woody plants, including those that come from trees and shrubs. These medicinal plants are also used as food, flavonoid, medicine or perfume and also in certain spiritual activities.

Plants have been used for medicinal purposes long before prehistoric period. Ancient Unani manuscripts Egyptian papyrus and Chinese writings described the use of herbs. Evidence exist that Unani Hakims, Indian Vaidis and European and Mediterranean cultures were using herbs for over 4000 years as medicine. Indigenous cultures such as Rome, Egypt, Iran, Africa and America used herbs in their healing rituals, while other developed traditional medical systems such as Unani, Ayurveda and Chinese Medicine in which herbal therapies were used systematically.

Traditional systems of medicine continue to be widely practised on many accounts. Population rise, inadequate supply of drugs, prohibitive cost of treatments, side effects of several synthetic drugs and development of resistance to currently used drugs for infectious diseases have led to increased emphasis on the use of plant materials as a source of medicines for a wide variety of human ailments.

Among ancient civilisations, India has been known to be rich repository of medicinal plants. The forest in India is the principal repository of large number of medicinal and aromatic plants, which are largely collected as raw materials for manufacture of drugs and perfumery products. About 8,000 herbal remedies have been codified in AYUSH systems in INDIA. Ayurveda, Unani, Siddha and Folk (tribal) medicines are the major systems of indigenous medicines. Among these systems, Ayurveda and Unani Medicine are most developed and

widely practised in India. The oldest printed book on Indian medicinal plants, *Hortus Malabaricus* (a 12-volume treatise on the medicinal plants of the Malabar region along India's west coast) dates back to 1678.

Medicinal plants play a crucial role in drug discovery, with at least 25 percent of modern medicine being derived either directly or indirectly from them. Challenges to conserving medicinal plants include overharvesting, biodiversity loss, eroding traditional knowledge and climate change. Under the principle of access-and-benefit sharing, as listed by the Convention of Biological Diversity and India's Biological Diversity Act, local communities should benefit from sharing their plant resources and traditional knowledge with others. According to one, by the World Health Organisation (WHO), 70 to 95 per cent of people in many developing countries rely largely on traditional medicine – mostly herbal remedies – for primary healthcare. In 2006, researchers estimated that more than 70,000 plant species were being used in medicines worldwide.

As per data available over three-quarters of the world population relies mainly on plants and plant extracts for their health care needs. More than 30% of the entire plant species, at one time or other were used for medicinal purposes. It has been estimated, that in developed countries such as United States, plant drugs constitute as much as 25% of the total drugs, while in fast developing countries such as India and China, the contribution is as much as 80%. Thus, the economic importance of medicinal plants is much more to countries such as India than to rest of the world. These countries provide two third of the plants used in modern system of medicine and the health care system of rural population depend on indigenous systems of medicine.

Treatment with medicinal plants is considered very safe as there is no or minimal side effects. These remedies are in sync with nature, which is the biggest advantage. The golden fact is that, use of herbal treatments is independent of any age groups and the sexes.

The ancient scholars only believed that herbs are only solutions to cure a number of health related problems and diseases. They conducted thorough study about the same, experimented to arrive at accurate conclusions about the efficacy of different herbs that have medicinal value. Most of the drugs, thus formulated, are free of side effects or reactions. This is the reason why herbal treatment is growing in popularity across the globe. These herbs that have medicinal quality provide rational means for the treatment of many internal diseases, which are otherwise considered difficult to cure.

Medicinal plants such as *Aloe*, *Tulsi*, *Neem*, *Turmeric* and *Ginger* cure several common ailments. These are considered as home remedies in many parts of the country. It is known fact that lots of consumers are using Basil (*Tulsi*) for making medicines, black tea, in *pooja* and other activities in their day to day life.

In several parts of the world many herbs are used to honour their kings showing it as a symbol of luck. Now, after finding the role of herbs in medicine, lots of consumers started the plantation of tulsi and other medicinal plants in their home gardens.

Medicinal plants are considered as a rich resources of ingredients which can be used in drug development either pharmacopoeial, non- pharmacopoeial or synthetic drugs. Apart from that, these plants play a critical role in the development of human cultures around the whole world. Moreover, some plants are considered as important source of nutrition and as a result of that they are recommended for their therapeutic values. Some of these plants include ginger, green tea, walnuts, aloe, pepper and turmeric etc. Some plants and their derivatives are considered as important source for active ingredients which are used in aspirin and toothpaste etc.

Apart from the medicinal uses, herbs are also used in natural dye, pest control, food, perfume, tea and so on. In many countries different kinds of medicinal plants/ herbs are used to keep ants, flies, mice and flee away from homes and offices. Now a days medicinal herbs are important sources for pharmaceutical manufacturing.

Recipes for the treatment of common ailments such as diarrhoea, constipation, hypertension, low sperm count, dysentery and weak penile erection, piles, coated tongue, menstrual disorders, bronchial asthma, leucorrhoea and fevers are given by the traditional medicine practitioners very effectively.

Over the past two decades, there has been a tremendous increase in the use of herbal medicine; however, there is still a significant lack of research data in this field. Therefore since 1999, WHO has published three volumes of the WHO monographs on selected medicinal plants.

This dissertation work is based on a short review done by going through some research articles based on survey work of medicinal plants found commonly in some parts of Burdwan district at random and enlisting the plants surveyed by them along with their therapeutic uses through collection of data.

# OBJECTIVES

- To create optimum awareness and interest amongst the common people about Medicinal Plants.
- To create optimum interest and awareness amongst cultivators/farmers for the cultivation of Medicinal Plants.
- To promote development of cultivation techniques (agro-techniques) for obtaining greater yield of plants.
- Promotion of cultivation and conservation of Medicinal Plants. To identify the plants to be conserved/cultivated in-situ at the different agro-climatic regions of the State and those to be cultivated /conserved in the fields (Ex-situ).
- To develop effective micro-propagation system for cost effective quality plant materials emphasizing the proper tie up with growers / industries for mass production.
- To conserve the bio-diversity of Medicinal Plants in West Bengal.
- To strengthen the research work on Medicinal Plants



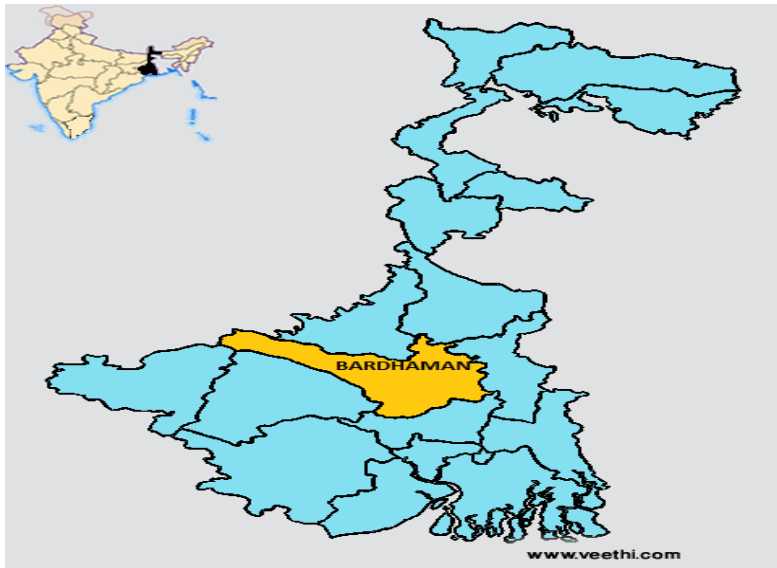
## METHODOLOGY

This REVIEW PAPER was done by going through some research articles based on survey work of medicinal plants found commonly in some parts of Burdwan district at random and enlisting the plants surveyed by them through collection of data. Survey is one of the fittest methods to collect data. Frequent field-trips were undertaken by the authors in different seasons of the year for the collection of the voucher specimens and also to record important data. During survey questioner method was adopted by the authors and data was collected from ethnic people. Most of the people of Burdwan district are dominated by tribal community. The community holds the ethnic culture and they use the ethnic medicine in their today life. In this review survey on Kalna subdivision of Burdwan district was also taken into account. The main data sources consisted of a series of semi-structured questionnaires and informal interviews administered on local herb sellers, the tribal person like-gunin, kaviraj, baidya, fakir, and the groups of people rich in traditional medicine knowledge. Finally all Plants were identified with help of Bentham and Hooker (1973) standard method. before going for enlistment and tabulation of data.

# GEOGRAPHICAL POSITION OF BURDWAN DISTRICT

Bardhaman district extends from 22°56' to 23°53' North latitude and from 86°48' to 88°25' East longitudes. Lying within Burdwan Division, the district is bounded on the north by Dumka (of Jharkhand), Birbhum and Murshidabad, on the east by Nadia, on the south by Hooghly, Bankura and Purulia and on the west by Dhanbad (of Jharkhand) districts.

The river Barakar forms the State boundary to the west; the Ajay separates Birbhum and Dumka to the north with exception of a portion of Katwa subdivision; the Damodar forms a southern boundary with Purulia and Bankura, while Bhagirathi forms the main eastern boundary with a few exceptions. The maximum length from east to west is 208 Km while the maximum breadth from north to south is 112 KM. In shape the district resembles a hammer.



Different types of soil are encountered in different topographical biological and hydrological as well as geological condition within the Bardhaman district. In the west coarse gritty soil blended with rock fragments is formed from the weathering of pegmatites, quartz veins and conglomeratic sandstones, where as sandy soil characteristic of granitic

rocks and sandstones. This soil is of reddish colour, medium to coarse in texture, acidic in reaction, low in nitrogen, calcium, phosphate and other plant nutrients. Water holding capacity of this soil increases with depth as well as with the increase of clay portions.

Towards the east alluvial soil attains an enormous thickness in the low level plains to the east. This alluvial soil is formed of alluvium brought down by the Ajay, Damodar, Bhagirathi and numerous other rivers. These soils are sandy, well drained and slightly acidic in nature.

Bardhaman is one of the premier districts in India in terms of value of mineral. The Raniganj coalfield was the birth place of the Indian coal industry. Besides coal, important minerals found in the district are, iron ores, calcium carbonate, abrasives, silica bricks and moulding sands, glass sands, building materials, Manganese, Bauxite, laterite etc.

The district experiences a climate which is transitional between CW<sub>g3</sub> and AW<sub>1</sub> types, where 'C' stands for 'warm temperate rainy climates with mild winter', 'W' for 'dry winter not compensated for by total rain in the rest of the year', 'g<sub>3</sub>' for 'eastern Ganges type of temperature trend' and 'AW<sub>1</sub>' for 'tropical savanna climates'. Average temperature in hot season is 30°C while at the cold season is 20°C. And average rainfall is 150 millimetre.

The cold season starts from about the middle of November and continues till the end of February. March to May is dry summer intervened by tropical cyclones and storms. June to September is wet summer while October and autumn.

# DOCUMENTATION OF MEDICINAL PLANTS FROM SURVEYED LITERATURE

So here are the list of medicinal plants that are being provided after compilation of surveyed literatures studied on Burdwan district. Among the plant parts used, roots have been the most popular followed by stem bark, leaves, whole plant, seeds and rhizomes. Traditional medicines were prepared in the forms of decoction, paste, infusion, powder or taken fresh. Oral root was reported as the only administration mode among the traditional healers in the treatment of fevers.

The scientific names, vernacular names, families, flowering times, useful parts and the basic medicinal uses of one hundred forty one medicinal plants of the Burdwan district are enlisted in the Appendix - I. Different parts of different used as medicine in the district by the native people. Active principles of the plant drugs are commonly more concentrated in the storage organs (Kochhar, 2001). In the 'Materia Medica', leaves of medicinal plants are more represented as the useful parts than their flowers. Now, on the basis of our findings (as reflected in the Appendix most dominant dicot families (sensu district ) having medicinally important plant species, are serially arranged as follows

Sl.No	Plant Name (Scientific Name)	Plant(Local Name)	Family	Parts Used	Medicinal Use
1.	<i>Abrus precatorius L.</i>	Kuch	Fabaceae	Roots, leaves,fruits	Cough,sore throat,rheumatism,eye disease,leucoderma,asthma and fever
2.	<i>Acacia nilotica (L.) Willd. Ex Delile</i>	Babul	Mimosaceae	Bark, leaves, gum	Astringent, demulcent, diarrhoea, dysentery
3.	<i>Achyranthes aspera L.</i>	Apang	Amaranthaceae	Whole plant, root, seeds	Purgative, diuretic, stops bleeding after abortion, dropsy, piles, boils, hydrophobia
4.	<i>Adhatoda vasica Nees.</i>	Vasak	Apocynaceae	Whole plant, leaves	Bronchodilatory, expectorant,dyspnoea
5.	<i>Aegle marmelos (L.) Corrêa ex Roxb.</i>	Bel	Rutaceae	Fruits	Laxative, diuretic.
6.	<i>Aerva lanata (L.) Juss.</i>	Chaldhowa	Amaranthaceae	Whole plant, root	Anthelmintic, diuretic, demulcent

7.	<i>Ageratum conyzoides L.</i>	Oouchunth	Asteraceae	Root, leaves	Styptic; cuts, sores; used as a nervine tonic.
8.	<i>Albizia lebbek (L.) Benth.</i>	Siris	Mimosaceae	Leaves, bark, root-bark, seeds	Astringent, piles, gum trouble, diarrhoea, night blindness
9.	<i>Alysicarpus vaginalis (L.) DC</i>	...	Fabaceae	Root	Cough
10.	<i>Amaranthus caudatus L.</i>	Ramdana	Amaranthaceae	Whole plant	Diuretic, blood purifier; piles
11.	<i>Amaranthus spinosus L.</i>	Kantanotey	Amaranthaceae	Root, leaves	Laxative, menorrhagia, gonorrhoea, colic, abscesses, night blindness
12.	<i>Amaranthus tricolor L.</i>	Laal shaak	Amaranthaceae	Whole plant	Astringent, menorrhagia, diarrhoea, ulcer.
13.	<i>Ammannia baccifera L.</i>	Daadmaari	Lythraceae	Acrid leaves	Skin affections.
14.	<i>Anagallis arvensis L.</i>	...	Primulaceae	Whole plant	Gout, cerebral affections, hydrophobia, leprosy, epilepsy.
15.	<i>Andrographis paniculata (Burm. f.) Wall</i>	Kalmegh	Acanthaceae	Whole plant	Fever, general debility, dysentery, dyspepsia, whooping cough
16.	<i>Annona squamosa L.</i>	Ata	Annonaceae	Root, leaves, fruits, seed	Insecticide, abortifacient
17.	<i>Atylosia scarabaeoides (L.) Benth.</i>	Bankulata	Fabaceae	Whole plant	Diarrhoea in cattle.
18.	<i>Azadirachta indica Juss.</i>	Nim	Meliaceae	Young branches, bark, leaves	Cough, asthma, piles, tumours, biliousness, skin diseases, pox, jaundice, blood purifier, toothache
19.	<i>Bacopa monnieri (L.) Wettst</i>	Brahmi shak	Scrophulariaceae	Whole plant	Astringent, laxative, carminative, leucoderma, intellect promoting, emmenagogue, spermatorrhoea
20.	<i>Barleria cristata L.</i>	Swetjhanti	Acanthaceae	Root, leaves	Cough, swellings.

21.	<i>Barleria prionitis L.</i>	Peetjhanti	Acanthaceae	Leaves , bark	Catarrhal affections, cough, anasarea, toothache
22.	<i>Barleria strigosa Willd.</i>	Neeljhanti	Acanthaceae	Root	Spasmodic cough.
23.	<i>Biophytum sensitivum (L.) Dc.</i>	...	Oxalidaceae	Root, leaves, seeds	Diuretic, wounds, gonorrhoea
24.	<i>Bombax ceiba L.</i>	Simul	Bombacaceae	Root, bark, gum	Stimulant, tonic, impotency, emetic, aphrodisiac, demulcent.
25.	<i>Butea monosperma (Lamk.) Taub.</i>	Palash	Fabaceae	Seeds	Diarrhoea , dysentery, bleeding piles.
26.	<i>Calotropis gigantea (L.)R. Br.</i>	Akand	Apocynaceae	Bark, leaves, roots	Dysentery,elephantiasis,lencorrhoea, earache.
27.	<i>Canscora decussata (Roxb.) R. &amp; S.</i>	...	Gentianaceae	Whole plant	Laxative, alterative, nerve tonic.
28.	<i>Cardiospermum helicacabum L.</i>	Shibjhul	Sapindaceae	Root, leaves	Diuretic, laxative; rheumatism, nervous diseases, rubefacient
29.	<i>Cassia absus</i>	Ban kulathi	Caesalpiaceae	Leaves, seed	Astringent, cathartic, cough, skin affections
30.	<i>Cassytha filiformis L.</i>	Aakashbel	Lauraceae	Whole plant	Tonic, alterative, bilious affections, dysentery, insecticide
31.	<i>Cayratia trifolia (L.) Domin.</i>	Amal lata	Vitaceae	Root, leaves	Astringent, boils, yoke-sore on neck of bullocks.
32.	<i>Celosia argentea L.</i>	Morog phool	Amaranthaceae	Seeds	Aphrodisiac, blood diseases, diarrhoea, mouth sores
33.	<i>Centella asiatica (L.) Urb.</i>	Thankuni	Apiaceae	Leaves	Fatigue,indigestion,constipation,loss of memory,irregular menstruation, dysentary,jaundice,fever,ulcer.
34.	<i>Cissampelos paerira L. var. hirsuta (DC.) Forman</i>	Akanadi	Menispermaceae	Root	Diuretic, antiperiodic and purgative
35.	<i>Cleome viscosa L.</i>	Hurhuria	Capparaceae	Seeds	Condiment, carminative and anthelmintic.

36.	<i>Clerodendrum viscosum Vent.</i>	Bhant/Ghentu	Verbenaceae	Root, leaves	Antiperiodic, vermifuge, febrifuge, tonic
37.	<i>Clitoria ternatea L.</i>	Aparajita	Fabaceae	Root, seed	Purgative, aperient, diuretic, laxative
38.	<i>Coccinia grandis (L.) J. Voigt</i>	Kundri / Telakuch	Cucurbitaceae	Roots, stems and leaves	Vomiting, cough, skin diseases, diabetes.
39.	<i>Cryptolepis buchananii R. &amp; S.</i>	Kankrashringi	Apocynaceae	Leaves	Toxic, rickets in children, rheumatism
40.	<i>Dalbergia lanceolaria L.f.</i>	...	Fabaceae	Bark, seed	Intermittent fever, dyspepsia, seed-oil in rheumatic affection
41.	<i>Dalbergia sissoo Roxb. ex DC</i>	Sissoo	Fabaceae	Root, leaves	Bitter, stimulant; gonorrhoea, astringent
42.	<i>Datura metel L.</i>	Dhutura	Solanaceae	Leaves	Narcotic, antispasmodic.
43.	<i>Dendrophthoe falcata (L.f.) Ettingsh.</i>	Banda	Loranthaceae	Bark	Astringent, narcotic; wounds, menstrual disorders.
44.	<i>Desmodium gangeticum (L.) DC.</i>	Salpani	Fabaceae	Root	Astringent, diuretic, biliousness, asthma, cough, diarrhoea.
45.	<i>Desmodium pulchellum (L.) Benth.</i>	...	Fabaceae	Bark, flowers	Haemorrhage, diarrhoea, eye diseases
46.	<i>Desmodium triflorum (L.) DC.</i>	...	Fabaceae	Leaves	Galactagogue, diarrhoea, dysentery, wounds
47.	<i>Diospyros malabarica (Desr.) Kostel.</i>	Gab	Ebenaceae	Stem-bark, fruits, seeds	Astringent; diarrhoea, dysentery, intermittent fever
48.	<i>Dodonaea viscosa Jacq.</i>	...	Sapindaceae	Bark, leaves	Astringent, febrifuge, sudorific, gout, rheumatism, wounds, swellings.
49.	<i>Eclipta prostrata (L.) L.</i>	Kesuti / Kesari	Asteraceae	Leaves	Hair tonic.
50.	<i>Elephantopus scaber L.</i>	Samdulun	Asteraceae	Whole plant, root, leaves	Astringent, cardiac tonic, alterative, dysuria, diarrhoea, dysentery

51.	<i>Emilia sonchifolia</i> (L.) DC.	Sadi-modi	Asteraceae	Whole plant	Febrifuge, eye inflammation, night blindness, sores, diarrhoea
52.	<i>Euphorbia neriifolia</i>	Mansa-sij	Euphorbiaceae	Root, juice	Purgative, rubefacient, expectorant, antiseptic.
53.	<i>Euphorbia thymifolia</i> L.	Swet-kerui	Euphorbiaceae	Leaves, seed, juice	Aromatic, astringent, stimulant, laxative, bowel complaint, ring worm.
54.	<i>Evolvulus alsinoides</i> (L.) L.	...	Convolvulaceae	Whole plant	Bitter tonic, febrifuge, vermifuge, dysentery
55.	<i>Ficus benghalensis</i> L.	Bot	Urticaceae	Bark, seed, juice	Rheumatism, lumbago, tonic, astringent, dysentery, diarrhoea
56.	<i>Ficus hispida</i> L.f.	Dumur	Urticaceae	Bark, fruits, seeds	Galactagogue, purgative, emetic.
57.	<i>Ficus racemosa</i> L.	Gular	Urticaceae	Bark, root, fruits	Astringent, dysentery, bilious affections, stomachic, piles.
58.	<i>Flacourtia indica</i> (Burm. f.) Merr.	Bainchi	Flacourtiaceae	Gum, fruit	Jaundice, enlarged spleen
59.	<i>Garuga pinnata</i> Roxb.	Jum / Nil Bhadi	Burseraceae	Stem, leaves, fruits	Stomachic, asthma, eye trouble.
60.	<i>Glinus lotoides</i> L.	Gandhi-buuti	Molluginaceae	Whole plant	Purgative, diarrhoea, bilious attack.
61.	<i>Grangea maderaspatana</i> (L.) Poir.	Namuti	Asteraceae	Leaves	Stomachic, antiseptic, earache, menstrual disorder
62.	<i>Guizotia abyssinica</i> (L.f.) Cass.	Surguja	Asteraceae	Seed	Oil in rheumatism
63.	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Schult.	Gurmara	Apocynaceae	Roots, leaves, fruits	Diabetes, enlargement of the liver and spleen, malarial fever, diuretic, cardiac stimulant
64.	<i>Helicteres isora</i> L.	Atmora	Sterculiaceae	Leaves, roots, fruits	Antiseptic, diabetes, body pain, scabies, fever, intestinal worms.
65.	<i>Heliotropium indicum</i> L.	Hatisunr	Boraginaceae	Leaves	Diuretic; boils, ulcers.



66.	<i>Heliotropium strigosum</i> Willd.	...	Boraginaceae	Whole plant	Laxative, diuretic; gum trouble, boils, sore eyes
67.	<i>Hemidesmus indicus</i> (L.) R. Br.	Ananta mal	Apocynaceae	Dried roots	Constitutional debility and kidney troubles, diarrhoea, dyspepsia, fever, leucorrhoea, rheumatism, skin diseases, syphilis, kidney stone, piles, ulcer.
68.	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. Ex G. Don = <i>H. antidysenterica</i> (Roth.) Dc	Kurchi	Apocynaceae	Roots, bark, seeds	Diarrhoea, blood dysentery, piles, fever, acute rheumatism, astringent, febrifuge, diabetes, intestinal worms, dropsy
69.	<i>Hygrophila schulli</i> M.R. et S.M. Almeida	Kulekhara	Acanthaceae	Whole plant	Swelling, anaemia, kidney stone, gonorrhoea, spermatorrhoea
70.	<i>Hyptis suaveolens</i> (L.) Poit.	Ganga tulsi	Lamiaceae	Whole plant	Stimulant, carminative, sudorific, lactagogue, parasitical cutaneous diseases.
71.	<i>Ichnocarpus frutescens</i> (L.) R. Br.	Dudhi lata	Apocynaceae	Root, leaves	Alterative, tonic
72.	<i>Ipomoea aquatica</i> Forssk	Kalmisak	Convolvulaceae	Whole plant, juice	Emetic, purgative, antidote to opium and arsenical poison
73.	<i>Ipomoea pes-tigridis</i> L.	Languli lata	Convolvulaceae	Root	Purgative, antidote to dog-bite, boils
74.	<i>Jatropha curcus</i> L.	Bag-bherenda	Euphorbiaceae	Leaves, fruits, seeds	Chronic dysentery, urinary discharges, abdominal complaints, biliousness, tumour
75.	<i>Jatropha gossypifolia</i> L.	Lal-bherenda	Euphorbiaceae	Leaves, bark, seed	Emmenagogue, emetic; boils, carbuncles, eczema; seed causes insanity
76.	<i>Lannea coromandelica</i> (Houtt.) Merrile	Jhingna	Anacardiaceae	Bark, leaves	Astringent, swellings, boils, ulcers
77.	<i>Leonotis nepetifolia</i> (L.) R. Br.	Hejurchi	Lamiaceae	Leaves, seeds	Skin affections, rheumatism
78.	<i>Leucas aspera</i> Link	Chhota hal-kusa	Lamiaceae	Whole plant	Antipyretic, insecticide, psoriasis, scabies

79.	<i>Linum usitatissimum</i> L.	Tisi	Malpighiaceae	Flowers, seeds	Demulcent, emollient, laxative, antilipidemic, bronchitis and cough, oil used in burns, skin injuries and sores
80.	<i>Madhuca longifolia</i> (Koen.) Macb. var. <i>latifolia</i> (Roxb.) Chevalier	Mahua	Sapotaceae	Bark, flower, seed-oil and gum	Stimulant, demulcent, laxative, anthelmintic, galactogenic, emetic, astringent, emollient, antirheumatic
81.	<i>Malvastrum</i> <i>coromandelianum</i> ( L.) Garcke	...	Malvaceae	Whole plant, flowers	Diaphoretic, sores, wounds
82.	<i>Mangifera indica</i> L.	Aam	Anacardiaceae	Leaves, bark, fruit	Burns and scales, checks hair loss, gastric ulcers, blood dysentery, nasal bleeding.
83.	<i>Martynia annua</i> L.	Baghnokh	Pedaliaceae	Juice, leaves, fruit	Epilepsy, sore throat, alexiteric
84.	<i>Melastoma</i> <i>malabathricum</i> L.	Futki	Melastomaceae	Bark, leaves, flowers	Astringent, in leucorrhoea, diarrhoea, dysentery
85.	<i>Melia azedarach</i> L.	Mahanim	Meliaceae	Root-bark, flowers, fruit, seed, leaves	Deobstruent, alexipharmic, antilithic, diuretic, rheumatism, leprsy.
86.	<i>Mirabilis jalapa</i> L.	Krishno- keli	Nyctaginaceae	Root, leaves	Aphrodisiac, purgative, maturant, boils.
87.	<i>Mollugo pentaphylla</i> L.	Khetpapara	Molluginaceae	Whole plant	Stomachic, aperiant, antiseptic, emmenagogue, antiperiodic
88.	<i>Momordica</i> <i>charantia</i> L.	Karela/Uch chhe	Cucurbitaceae	Fruits	Stomachic, laxative, antibilious, emetic, anthelmntic, antidiabetic
89.	<i>Momordica dioica</i>	Kakrol	Cucurbitaceae	Tuber	Bleeding of piles.
90.	<i>Moringa oleifera</i> Lamk	Sajina	Moringaceae	Whole plant	Cardiac and circulatory stimulant, antipyretic, anthelmintic, diuretic.
91.	<i>Nelumbo nucifera</i> Gaertn.	Padma	Nelumbonaceae	Flowers, carpels, rhizomes	Cardiac poison.
92.	<i>Nerium indicum</i> Mill.	Karabi	Apocynaceae	Root	Resolvent, attenuant

93.	<i>Nyctanthes arbor-tristis L.</i>	Seoli	Oleaceae	Leaves	Cholagogue, laxative, sciatica, fever, rheumatism
94.	<i>Nymphaea pubescens Willd</i>	Lal shaluk	Nymphaeaceae	Root, flowers	Demulscent, astringent, cardio-tonic, piles.
95.	<i>Ochna obtusata DC.</i>	...	Ochnaceae	Root, bark	Digestive, tonic, menstrual disorders, asthma, emollient cataplasm.
96.	<i>Ocimum americanum L.</i>	Bantulasi	Lamiaceae	Leaves	Parasitical skin diseases.
97.	<i>Ocimum basilicum L.</i>	Ram-tulsi	Lamiaceae	Root, leaves	Carminative, diuretic, stimulant, demulcent, diarrhoea, dysentery
98.	<i>Olax scandens Roxb.</i>	Koko-aru	Olacaceae	Bark	Anaemia
99.	<i>Oldenlandia corymbosa L.</i>	Khetpapara	Rubiaceae	Whole plant	Remittent fever, nervous depression, jaundice, liver trouble
100.	<i>Operculina turpethum (L.) S. Manso</i>	Dudh kalmi	Convolvulaceae	Root	Purgative
101.	<i>Oxalis corniculata L.</i>	Amrul	Oxalidaceae	Whole plant	Scurvy, cooling, refrigerant, antiscorbutic
102.	<i>Passiflora foetida L.</i>	...	Passifloraceae	Leaves, fruits	Biliousness, asthma, emetic
103.	<i>Phyllanthus urinaria L.</i>	Hazar mani	Euphorbiaceae	Whole plant	Diuretic, gonorrhoea, fish poison.
104.	<i>Plumbago zeylanica L.</i>	Swet cheta	Plumbaginaceae	Root-bark	Rheumatic joints, leprosy, paralytic limbs, piles, diarrhoea and skin diseases
105.	<i>Pogostemon benghalense (Burm.f.) Kuntze</i>	Ishwar jata	Lamiaceae	Leaves, root	Styptic, haemorrhage, antidote to scorpion-sting
106.	<i>Polycarpaea corymbosa (L.) Lamk.</i>	September-December	Caryophyllaceae	Whole plant	Boil, swellings, jaundice, bites from animals
107.	<i>Polygala arvensis Willd</i>	Meradu	Polygalaceae	Leaves, root	Asthma, fever, dizziness

108.	<i>Polygala crotalarioides</i> Buch.-Ham. ex DC	Neelkantha	Polygalaceae	Whole plant, root	Cough, pulmonary catarrhal affections, snake bite
109.	<i>Polygonum barbatum</i> L	Bekh-unjubaz	Polygalaceae	Root, seed	Colic; astringent, cooling
110.	<i>Polygonum plebejum</i> R.Br.	...	Polygalaceae	Whole plant, root	Bowel complaint
111.	<i>Psidium guajava</i> L.	Piyara	Myrtaceae	Leaves, flower, fruit	Antidiarrhoeal, used for dysentery, antidiabetes, anthelmintic
112.	<i>Ricinus communis</i> L.	Rerhi	Euphorbiaceae	Roots, leaves, seeds	Dysentery, scanty urination, skin disease, sciatica, night blindness, rheumatism, boils, flatulence, intestinal worm, cough.
113.	<i>Rorippa indica</i> (L.) Hiern	...	Brassicaceae	Whole plant	Diuretic, stimulant, antiscorbutic
114.	<i>Salvia plebeia</i> R.Br.	Bhuin tulsi	Lamiaceae	Seeds	Diarrhoea, gonorrhoea, menorrhagia, hemorrhoids
115.	<i>Schleichera oleosa</i> (Lour.) Oken.	Kusum	Sapindaceae	Bark, seed	Skin troubles, rheumatism
116.	<i>Sebastiania chamaelea</i> Muell.-Arg.	...	Euphorbiaceae	Juice	Astringent, tonic, demulcent
117.	<i>Sesbania sesban</i> (L.) Merr	Jayanti	Fabaceae	Bark, seed	Astringent, diarrhoea, menstrual disorders
118.	<i>Shorea robusta</i> C.F. Gaertn	Sal	Dipterocarpaceae	Resin	Astringent, dysentery, gonorrhoea
119.	<i>Sida cordifolia</i> L.	Berela	Malvaceae	Leaves, roots	Demulcent, febrifuge, dysentery, astringent, diuretic, tonic
120.	<i>Sida rhombifolia</i> L.	Lal berela	Malvaceae	Root, leaves	Swellings, rheumatism, demulcent.
121.	<i>Sida spinosa</i>	Ban-methi	Malvaceae	Root, bark, leaves	Tonic, diaphoretic, fever, gonorrhoea, demulcent
122.	<i>Siegesbeckia orientalis</i> L.	...	Asteraceae	Whole plant	Depurative, tonic, ulcers

123.	<i>Solanum ferox</i> L. = <i>S. indicum</i> L. nom. <i>rej</i>	Ram-begun	Solanaceae	Roots, leaves, fruits, seeds	Toothache, fever, leucoderma, vomiting, chronic asthma, diarrhea, enlarged bile, menstrual pain
124.	<i>Solanum nigrum</i> L.	Gurkhi	Solanaceae	Whole plant	Asthma, bronchitis, rheumatism, general debility, dysentery
125.	<i>Spondias pinnata</i> (L.f.) Kurz	Amra	Anacardiaceae	Bark, fruit	Antiscorbutic, astringent, dysentery, rheumatism
126.	<i>Symplocos racemosa</i> Roxb.	Lodh	Symplocaceae	Bark	Cooling, astringent, bowel complaints, eye trouble
127.	<i>Syzygium cumini</i> (L.) Skeels	Jam	Myrtaceae	Bark, leaves, fruit, seed	Stomachic, carminative, diuretic, antidiarrhoeal, hypoglycaemic, antibacterial, antidyenteric.
128.	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wt. & Arn.	Arjun	Combretaceae	Bark, leaves, fruit,	Styptic, antidysenteric, febrifuge, cirrhosis of liver, symptomatic hypertension, asthma, earache, sores and ulcers.
129.	<i>Terminalia bellirica</i> (Gaertn.) Roxb	Bahera	Combretaceae	Ripe fruits	Astringent, purgative.
130.	<i>Terminalia chebula</i> Retz	Haritaki	Combretaceae	Fruits	Laxative, stomachic, tonic.
131.	<i>Thespesia lampas</i> (Cav.) Dalz. ex Dalz. & Gibs	Ban-kapas	Malvaceae	Root, fruit	Gonorrhoea.
132.	<i>Tragia involucrata</i> L.	Bichati	Euphorbiaceae	Root	Diaphoretic, alterative.
133.	<i>Trema orientalis</i> (L.) Bl.	Chikun	Urticaceae	Whole plant	Epilepsy.
134.	<i>Trichosanthes</i> <i>cucumerina</i> L.	Ban- chichinga	Cucurbitaceae	Whole plant, leaves	Bitter laxative, emetic, cathartic
135.	<i>Tridax procumbens</i> L.	Targanda	Asteraceae	Leaves	Antiseptic, hair-tonic.
136.	<i>Uraria picta</i> (Jacq.) Desv. ex DC.	Sankar-jata	Fabaceae	Whole plant	Antidote to snake-bite.
137.	<i>Ventilago denticulata</i> Willd.	Raktapita	Rhamnaceae	Juice	Malarial fever.

138.	<i>Vernonia cinerea</i> (L.) Less.	Kalao-jhira	Asteraceae	Whole plant, seeds	Diaphoretic, anthelmintic, abortifacient, dysentery
139.	<i>Woodfordia fruticosa</i> (L.) Kurz	Dhowa	Lythraceae	Leaves, flowers, fruits	Astringent, dysentery, liver trouble
140.	<i>Xeromphis</i> <i>uliginosa</i> (Retz.) Mahes.	Mainphal	Rubiaceae	Fruits	Dysentery, diarrhoea
141.	<i>Zornia gibbosa</i> Span.	...	Fabaceae	Root	Induces sleep in children

# IMAGES OF SOME MEDICINAL PLANTS



**FIG 1. Aata (*Annona squamosa*)**



**FIG 2. Aam (*Mangifera indica*)**



**FIG 3. Akanda (*Calotropis gigantea*)**



**FIG 4. Aakashbel (*Cassytha filiformis*)**



*FIG 5. Bhuintulsi (Salvia plebeia)*



*FIG 6. Bot (Ficus benghalensis)*



*FIG 7 Brahmi Sak (Bacopa monnieri)*



*FIG 8. Dhutura (Datura metel)*





*FiG 9. Aparajita (Clitoria ternatea)*



*FiG 10. Bainchi (Flacourita indica)*



*FiG 11. Bantulsi (Ocimum mericanum)*



*FiG 12. Bel (Aegle marmelos)*



***FIG 13. Dumur (Ficus hispida)***



***FIG 14. Ganga Tulsi (Hyptis suaveolens)***



***FIG 15. Hazarmani (Phyllanthus uriaria)***



***FIG 16. Jum (Garuga pinnata)***



**FIG 17. Kalmegh (*Andrographis paniculata*)**



**FIG 18. Karabi (*Nerium indicum*)**



**FIG 19. Kesari (*Eclipta prostrata*)**



**FIG 20. Krishnokeli (*Mirabilis jalapa*)**



**FIG 21. Kuch (*Abrus precatorius*)**



**FIG 22. Kundri (*Coccinia grandis*)**



**FIG 23. Kusum (*Schleichera oleosa*)**



**FIG 24. Laal Saluk (*Nymphaea pubescens*)**



**FIG 25. Laalsaak (*Amaranthus tricolor*)**

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**FIG 26. Mahua (*Madhuca longifolia*)**



**FIG 27. Meradu (*Polygala arvensis*)**



**FIG 28. Moroghool (*Celosia argentea*)**



**FIG 29. Neeljhanti (*Barleria strigosa*)**



**FIG 30. Neelkantha (*Polygala cratalarioides*)**



**FIG 31. Nim (*Azadirachta indica*)**



**FIG 32. Padma (*Nelumbo nucifera*)**



**FIG 33. Palash (*Butea monosperma*)**



**FIG 34. Peetjhanti (*Barleria prionitis*)**



**FIG 35. Piyara (*Psidium guajava*)**



**FIG 36. Ramtulsi (*Ocimum basilicum*)**



**FIG 37. Salpani (*Demodium gangeticum*)**



**FIG 38. Shewjhanti (*Barleria cristata*)**



**FIG 39. Simul (*Bombax ceiba*)**



**FIG 40. Siris (*Albizia lebback*)**





*FIG 41. Sisu (Dalbergia sisso)*



*FIG 42. Thankuni (Centella asiatica)*



*FIG 43. Tisi (Linum usitatissimum)*



*FIG 44. Vasak (Adhatada vasica)*

# DESCRIPTION & PRESCRIBED DOSES OF SOME IMPORTANT MEDICINAL PLANTS

Here is a short list of commonly found medicinal plants used in our daily lives picked up for detailed study from the list of plants surveyed throughout the district :

Plant Name(Local Name)C	Scientific Name	Family
<i>Aswagandha</i>	<i>Ambroma augustum</i>	<i>Malvaceae</i>
<i>Ada(Ginger)</i>	<i>Zingiber officinale</i>	<i>Zingiberaceae</i>
<i>Dhania</i>	<i>Coriandrum sativum</i>	<i>Apiaceae</i>
<i>Tejpata(Indian bay leaf)</i>	<i>Cinnamomum tamala</i>	<i>Lauraceae</i>
<i>Holud(Turmeric)</i>	<i>Curcuma longa</i>	<i>Zingiberaceae</i>
<i>Akanda</i>	<i>Calotropis sp</i>	<i>Apocynaceae</i>
<i>Daruchini(Cinnamon bark)</i>	<i>Cinnamomum sp</i>	<i>Lauraceae</i>

**Description in details with their traditionally prescribed doses:**

## 1. *Aswagandha (Ambroma augustum)* :

Ashwagandha is a small evergreen shrub. It grows in India, the Middle East, and parts of Africa.

The root and berry are used to make medicine. Ashwagandha is commonly used for stress. It is also used as an "*adaptogen*" for many other conditions, but there is no good scientific evidence to support these other uses.

**Medicinal Part Uses** : Soaked in water for a day and taken it in empty stomach.

**Use in the Diseases** : Effective on dysmenorrheal problem and white vaginal discharge on women. Vegetable meal also prescribed with it.

**Dose of Medicine** : 5 gm dry bark.

**Medicinal Course** : 2-3 months, Except the time of menstrual cycle.

## 2. Ginger (*Zingiber officinale*) :

Ginger is a medicinal plant with **leafy stems** and yellowish **green flowers**.

The ginger spice comes from **the roots** of the plant. Ginger is native to warmer parts of Asia, such as China, Japan, and India, but now is grown in parts of South American and Africa. It is also now grown in the Middle East to use as medicine and with food.

**Medicinal Part Uses** : Decoction of zingier along with Adhatoa vasica leaf extract mixed in same amount taken in empty stomach.

**Use in the Diseases** : Pox, Fever, Chicken pox etc.

**Dose of Medicine** : 4-5 gm bark in cup of milk.

**Medicinal Course** : 7 days, twice a Day.

## 3. Dhania (*Coriandrum sativum*) :

Coriander (*Coriandrum sativum* L.) is a plant from the family of *Apiaceae*.

**Seeds and the herb** of coriander, both of which are used as spice or a medicinal plant. It contains flavoring compounds such as **linalool, geraniol, pinen, limonene, geranylacetat, terpinen, and borneol**.

**Medicinal Part Uses** : Water extract of seeds mixed with sugar.

**Use in the Diseases** : Reduce urinary track infection, irritation and burning.

**Dose of Medicine** : Two tea spoon of extract with one teaspoon of sugar.

**Medicinal Course** : Upto total cure of disease

## 4. Indian Bay Leaf (*Cinnamomum tamala*):

Indian Bay leaves are also known as Tej Patta which translates as '*pungent leaf*' or Malabar leaf.

Indian Bay leaves are **larger, olive green** in colour and have 3 veins running the length of the leaf as opposed to the single vein that is usually present on a Laurel Bay leaf. The aroma and flavour of Indian Bay leaves is strongly reminiscent of cinnamon, cloves and cassia.

**Medicinal Part Uses** : Soaked in water over night and taken in the morning at empty stomach.

**Use in the Diseases** : Urinal problem, Blood urine.

**Dose of Medicine** : 3-4 no. of leaves.

**Medicinal Course** : 1 months

## 5. Turmeric (*Curcuma longa*) :

Turmeric is a plant that has a very long history of medicinal use, dating back nearly 4000 years. In Southeast Asia, turmeric is used not only as a principal spice but also as a component in religious ceremonies. Because of its brilliant yellow color, turmeric is also known as "*Indian saffron*". Modern medicine has begun to recognize its importance, as indicated by the over 3000 publications dealing with turmeric that came out within the last 25 years.

It is a product of *Curcuma longa*, a rhizomatous herbaceous perennial plant belonging to the ginger family **Zingiberaceae**, which is native to tropical South Asia.

More than 100 components have been isolated from turmeric. The main component of the root is a volatile oil, containing **turmerone**, and there are other coloring agents called curcuminoids in turmeric. Curcuminoids consist of **curcumin demethoxycurcumin, 5'-methoxycurcumin, and dihydrocurcumin**, which are found to be natural antioxidants.

**Medicinal Part Uses** : Rhizomes

**Use in the Diseases** : Urinal problem, conjunctivitis, skin cancer, small pox, chicken pox, wound healing etc.

**Dose of Medicine** : Freshly prepared paste of turmeric mixed with double amount of molasses .

**Medicinal Course** : 1 months

## 6. Akanda(*Calotropis sp*) :

*Calotropis* is a genus of flowering plants in the family Apocynaceae, first described as a genus in 1810. It is native to southern Asia and North Africa.

They are commonly known as milkweeds because of the latex they produce. Fibers of these plants are called madar or mader.

**Medicinal Part Uses :** Powdered root bark.

**Use in the Diseases :** Use in cough, asthma, dysentery.

**Dose of Medicine :** 30-40 mg of root powder.

**Medicinal Course :** Taken upto cure.

## 7. Daruchini(*Cinnamomum bark*):

**Cinnamon** is a spice obtained from the inner bark of several tree species from the genus *Cinnamomum*. Cinnamon is used mainly as an aromatic condiment and flavouring additive in a wide variety of cuisines, sweet and savoury dishes.

**Cinnamon bark** is used for gastrointestinal (GI) upset, diarrhea, gas, menstrual cramps, the common cold, and the flu (influenza). Recently some researchers found that **cinnamon** may help protect against HIV.

**Medicinal Part Uses :** Soaked in water full night and mixed honey with in it and taken in morning.

**Use in the Diseases :** Cough, bronchitis, common cold problem.

**Dose of Medicine :** 1-2 gm daily.

**Medicinal Course :** 7 days.

## DISCUSSION

A good number of plants belonging to different families are used by a good number of tribal communities distributed in the different parts of the district starting from the altitude of 700 feet to plain region. Indigenous traditional knowledge as far as health & hygiene is concerned is very productive as well as urge of this millennium in the context of globalization, climate change and sustainable development.

But unfortunately, the precious and perennial non-documented traditional knowledge and its full potentiality have not yet been utilized in the light of modern art and science of medical sciences. Observation states that most of the aforesaid plants do not have any recorded toxic affect upon the users.

This review paper accumulates about **147 plants species** belonging to **66 different plant families** reported with their scientific names, family and local names. Traditional knowledge of many unexplored medicinal plants used by the tribals as remedies for various diseases have been discussed here mentioning their medicinally useful parts and their therapeutic uses. Few commonly used plants like *Ambroma augusta*, *Zingiber officinale*, *Coriandrum sativum*, *Cinnamomum tamala*, *Curcuma longa*, *Calotropis* and *Cinnamomum* have been discussed with their therapeutic doses as prescribed traditionally for administration. It has been mentioned in “Materia Medica” that the active principles of the plant drugs are commonly more concentrated in the storage organs like roots, seeds, barks and leaves of plants than in their flowers. The observations dealt here also holds good in this context.

## CONCLUSION

**The diversity of the medicinal plant species that has been noted in the Burdwan district, in general, reflected the richness of its flora. Now, the wild medicinal plants enumerated in the text might have been classified on the basis of the diseases for which they are used** Thus, it can be inferred that various types of plants used to treat a particular type of disease may possess similar chemical constituents or bioactive principles. This study has demonstrated the therapeutic properties of plants that can be used for the treatment of various diseases, which can be prepared and used directly. Actually traditional ethnomedicine and the knowledge of these medicine is conserved within the community and there is no written information. There is very urgent need of conserve the knowledge of the traditional medicine for human civilization.

Thus, **this concise list will provide basic data for further studies aimed at conservation and cultivation of medicinal plants, along with informations regarding the traditional medicines which, in turn, may aid in detailed planning regarding the holistic economic welfare of the local inhabitants of the district of Burdwan.**

**This information may be used for adopting the proper healthcare measures by the policy makers and may convey an avenue to develop new type of drugs having the least toxic effects.** There is an immediate urge of recording of all type of non-documented knowledge through the proper exploration and mining the precious and valuable attributes in this regard.

Despite their immense economic importance, global biodiversity loss and erosion of traditional knowledge systems impose threats to medicinal plants and their associated knowledge and thus increased commercialization of medicinal plant resources also brings in issues of access to this wealth and equitable sharing of benefits.

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