



## DIVERSITY OF FEW MEDICINAL PLANTS AND ITS CHEMICAL COMPOSITION

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**ABSTRACT** Biodiversity refers to the numbers, variety and variability of living organisms and ecosystem. India is one of the world's top 12 mega diversity countries. Conventional medicines are very important part of Indian culture. Information related to different plants which are used by local community in the treatment of many diseases and well being is collected. Plants are always considered as a primary source of drugs in traditional and alternative system of medicine in various forms such as crude form, juice, decoction and crude extracts.

### KEYWORDS :

#### INTRODUCTION:

Ayurveda is the science of life, aims to maintain the health of a healthy person and treating the disease of a person. Medicinal plants are the base of ayurveda and the different ancient ayurvedic classics described the morphology, species and uses of these medicinal plants. Biodiversity refers to the numbers, variety and variability of living organisms and ecosystem. India is one of the world's top 12 mega diversity countries. Conventional medicines are very important part of Indian culture. Information related to different plants which are used by local community in the treatment of many diseases and well being is collected. Plants are always considered as a primary source of drugs in traditional and alternative system of medicine in various forms such as crude form, juice, decoction and crude extracts.

#### AIM & OBJECTIVES:

Primary aim is for assessing the diversity, chemical composition and uses of medicinal plants.

#### MATERIAL & METHODS:

Manual and electronic search was done on ancient books  
Electronic search was done in journal and internet.

#### RESULT & DISCUSSION:

Now we shall discuss the different species of the following plants with their chemical composition along with their uses:

NAME	BOTANICAL NAME	PART USED	VARIETY	CHEMICAL COMPOSITION	USES
<i>TULSI</i>	<i>Ocimum sanctum</i>	Leaf, root, seed	1. dark holy basil or <i>krishna tulsi</i> ( <i>ocimum sanctum</i> ) 2. light holy basil or <i>rama tulsi</i> ( <i>ocimum americanum</i> ) 3. wild leaf holy basil or <i>vana tulsi</i> ( <i>ocimum gratissimum</i> )	1. <i>krishna tulsi</i> : oleanolic acid, ursolic acid, rosmarinic acid, eugenol, carvacrol. 2. <i>rama tulsi</i> : toluene, camphor, sabinene, borneol. 3. <i>vana tulsi</i> : eugenol, methyl eugenol, caraphyllene.	Fever, bronchitis, arthritis etc. <i>rama tulsi</i> mainly used as tea, digestive and in oral care etc. PHARMACOLOGICAL ACTION: antimicrobial, antioxidant, hypoglycaemic, antipyretic etc.
<i>GUDUCHI</i>	<i>Tinospora cordifolia</i>	Stem, leaf, areal, roots	1. <i>guduchi</i> ( <i>tinospora cordifolia</i> ) 2. <i>kandodhbava guduchi</i> ( <i>tinospora cinesis</i> )	1. <i>guduchi</i> : tinosporin, tinosporide, cordifolisides. 2. <i>kandodhbava guduchi</i> : tetracosanoic acid, tinosporin.	Diabetics, immune booster, anaemia, rheumatoid arthritis, gout. PHARMACOLOGICAL ACTION: antioxidant, antirheumatic, anti-inflammatory etc.
<i>PATHA</i>	<i>Cissampelos pariera</i>	root	1. <i>rajpatha</i> ( <i>cyclea peltata</i> ) 2. <i>laghupatha</i> ( <i>cissampelos pariera</i> )	1. <i>rajpatha</i> : fangchinoline, cyclopeptine, cycleadrine, perpamine 2. <i>laghupatha</i> : hayatin, hayatinin, cissamine, berberine.	Diarrhea, fever, worm infestation, skin disorder. <i>laghu patha</i> mainly used for asthma, headache etc. PHARMACOLOGICAL ACTION: antibacterial, anti-inflammatory etc.
<i>BALA</i>	<i>Sida cordifolia</i>	root	1. <i>bala</i> ( <i>sida cordifolia</i> ) 2. <i>atibala</i> ( <i>abutum indicum</i> ) 3. <i>nagbala</i> ( <i>sida veronicaefolia</i> )	1. <i>bala</i> : ephedrine, hypaphorine, vasicinone, vasicine, choline 2. <i>atibala</i> : hescoses, P-coumaric, caffeic, fumaric, amino acid. <i>Nagbala</i> : beta phenethylamines, quinazoline, gossypol, linoleic acid.	Gout, heart attack, muscle disorder, body strengthening drug. PHARMACOLOGICAL ACTION: Antioxidant, immune booster.

Among the three varieties of *tulsi* given above, the *Krishna tulsi* has the highest potency compared to the others. The pharmacological action of *guduchi* is considered more than the action of the *kandodhbava guduchi*. In the varieties of *patha*, *laghu patha* is having more potent

action than the *rajpatha*. In the context of *bala*, the different varieties of *bala* has different pharmacological action depending on their chemical composition.

**CONCLUSION:**

Human beings can not exist on this planet without plants. Plants are integral part of human culture since the start of civilization. Local communities possess knowledge of medicinal remedies derived from species belonging to different families to treat the ailments. Various types have different chemical constituent and different uses. Diversity in medicinal plants provide an important source for traditional medicinal system as well as pharmaceutical industries in the country.

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