



**AN ASSESSMENT OF MEDICINAL PLANTS IN JSA MEDICAL COLLEGE FOR SIDDHA  
AND RESEARCH CENTRE CAMPUS, ULUNDURPET, TAMIL NADU, INDIA.**

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**ABSTRACT**

The use of plants and its secondary metabolic products as medicine could be traced as far back as the beginning of human civilization. In order, to enrich the use of herbs, a survey of medicinal plant diversity was carried out in JSA Medical College for Siddha and Research Centre campus. As a result of survey visit, a total of 188 medicinal plant species with 89 genus were identified. The aim of the study is to conserve the valuable bio resources. All these plants having enormous therapeutic uses such as antibacterial, antiviral, antidote, anti-cancer, antidiabetic etc. The medicinal plants collected are arranged by scientific name, common name, family name, plant parts used & therapeutic uses. The plants documented in this survey belong to the families such as Acanthaceae, Amaranthaceae, Apocyanaceae, Asclepiadaceae, Asteraceae, Cucurbitaceae, Euphorbiaceae, Lamiaceae, Liliaceae, Malvaceae, Fabaceae, Verbenaceae, Mimosoideae, Vitaceae, Solanaceae, Poaceae etc. The present investigation revealed that the medicinal plants still play a vital role in the primary health care of people.

**Key words:** *Medicinal plants, Siddha, Floral diversity, Ayush.*

## INTRODUCTION

The term “medicinal plants” includes various types of plants used in herbalism (herbal medicine). It is the use of plants for medicinal purposes and the study of its uses (NHP, 2016).

Herbs are mainly used for disease prevention and treatment. Now days, herbs refer to any part of plant like fruit, seed, stem, bark, flower, leaf, stigma or a root. These medicinal plants are also used as food, medicine and also in certain spiritual activities (Vyshnavi, 2021)

Plants have been used for medicinal purposes long before prehistoric period. Traditional systems of medicine continue to widely practised on many accounts. 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 medicine (Archana *et al.*, 2011).

Medicinal plants are considered as rich resources of ingredients which can be used in drug development pharmacopoeial, non- pharmacopoeial or synthetic drugs. Moreover, some plants are considered as important source of nutrition and as a result of that they are recommended for their therapeutic values. Apart from the medicinal uses, herbs are used in natural dye, pest control, food, perfume, tea and so on (Samuelsson, 2004).

Over the past two decades, there has been a tremendous increase in the use of herbal medicine. The medicinal plant sector has traditionally occupied a pivotal position in the socio cultural, spiritual and medicinal area of rural and tribal families (Pandey *et al.*, 2013)

The present paper is an attempt to know the distribution of plant diversity on campus of JSA Medical College for Siddha and Research Centre. The college campus is surrounded by different types of herbs, vines, trees and ornamental plants. Field study was carried out over a period of 3 months from November 2021 to January 2022. In the outlook of this study, medicinal plant species and other applicable information were collected.

## PLANT COLLECTION

The plant specimens were collected in polythene bags to avoid desiccation. The data regarding their habit, habitat, morphology and flower colour etc. were noted down in the field note book.

## PLANT IDENTIFICATION

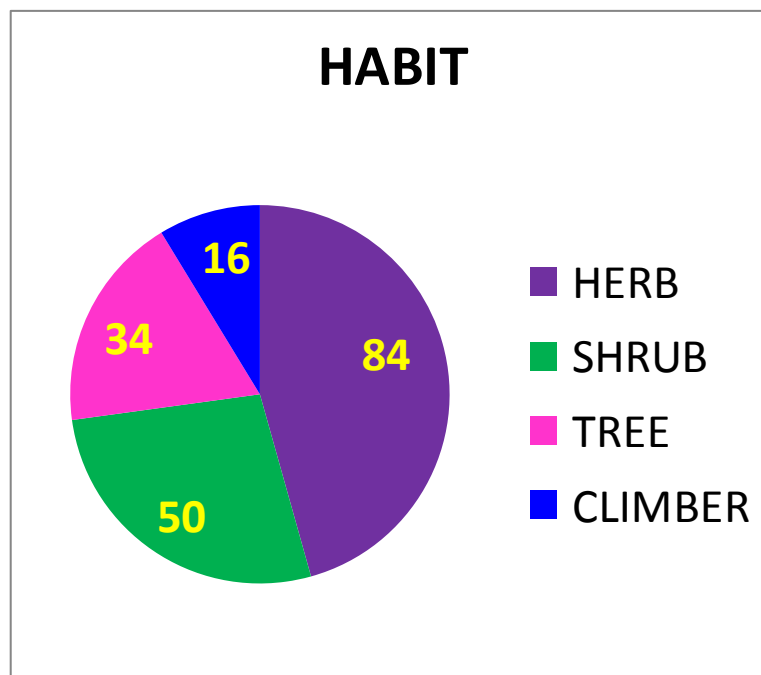
The collected plant specimens were dried and herbarium sheets were prepared and deposited in the Department of Maruthuva Thavaraiyal (Medicinal Botany), JSA Medical College for Siddha and Research Centre, Ulundurpet, Kallakurchi, Tamil Nadu, India. Plants collected during the surveys were identified with the help of existing Floras- “The Flora of Presidency of Madras” and “The Flora of Tamil Nadu Carnatic”. The identified plant specimens were then confirmed with the herbaria of Botanical Survey of India (BSI), southern circle, Coimbatore, India. The plant species have been arranged in alphabetical order and for each species are listed: Latin name, Local name, Plant part used, Family and Medicinal uses.



**Figure 1:** Study area – JSA Medical College for Siddha and Research Centre Campus



**Figure 2:** Medicinal plants Garden in College Campus



**figure 3:** Pie chart represents the Habit of the medicinal plants



**Figure 4:** a) *Bougainvillea spectabilis* Willd.      b) *Ixora coccinea* (L.)  
c) *Euphorbia mili* Des Moul.      d) *Gomphorena decumbens* (L.)  
e) *Hibiscus rosa-sinensis* (L.)      f) *Vinca rosea* L.

## Results and Discussion

In the present study, 188 plant species belonging to 70 families have been identified from the study area. Of these, all the plants have medicinal values. While enumerating the plant species, they are arranged according to the Bentham and Hooker system of classification with their botanical name, common name, family, plant parts used and their therapeutic uses (Table 1). The study also reveals that most of the medicinal plants available are herbaceous forms (84), shrub (50), climber (16) and trees (34) (Fig 3). Among the surveyed list Lamiaceae floral diversity was represented by highest number of species (13 spp), followed by Acanthaceae and Euphorbiaceae (12 spp), Fabaceae (11 spp). The complete list of the other plant species is given in Table 2.

**Table 2: Floral diversity of plants**

S. No	FAMILY	TOTAL NO OF SPECIES
1	Lamiaceae	13
2	Euphorbiaceae, Acanthaceae	12
3	Fabaceae	11
4	Apocynaceae, Asteraceae, Amranthaceae	8
5	Malvaceae, Poaceae	6
6	Rutaceae, Caesalpinaceae, Solanaceae, Asclepiadaceae Verbenaceae	5
7	Rubiaceae	4
8	Myrtaceae, Vitaceae, Nyctaginaceae, Liliaceae.	3
9	Zingiberaceae, Meliaceae, Bambusaceae, Capparidaceae Cucurbitaceae, Tiliaceae, Boraginaceae, Anacardiaceae Punicaceae, Piperaceae, Combretaceae.	2
10	Salvadoraceae, Basellaceae, Oxalidaceae, Cannaceae Sapindaceae, Apiaceae, Sapotaceae, Costaceae, Amaryllidaceae Cycadaceae, Cyperaceae, Convolvulaceae, Agaveaceae Oleaceae, Crassulaceae, Lythraceae, Malpighiaceae Mimosaceae, Moringaceae, Cactaceae, Passifloraceae Phyllanthaceae, Portulacaceae, Urticaceae, Rosaceae, Santalaceae Menispermaceae, Aizoaceae, Zygophyllaceae, Amrayllidaceae Rhamnaceae, Moraceae, Aristolochiaceae, Araucariaceae Annonaceae, Bromeliaceae, Alangiaceae, Asparagaceae.	1

The surveyed medicinal plants are used to remediate variety of diseases and ailments like diarrhoea, diabetes, asthma, fever, jaundice, rheumatism, wounds, cuts, stomach pain, cold, cough, body pain, bronchitis, dysentery, leprosy, piles, ulcer, tooth ache, urinary troubles, vomit, skin diseases, nausea etc. The plant and plant products play an important role in the treatment of diseases in ancient times. Plants are a rich source of free radical scavenging molecules such as terpenoids, vitamins, lignins, phenolic acids, flavonoids,

tannins, quinines, alkaloids, coumarins, betalains, amines and other metabolites which are rich in antioxidant property. The antioxidants property in plant products helps in the stimulation of biological system against oxidative damage. In the modern day world traditional ethno medicinal plants play a significant role in the health-care system, but due to lack of interest between the younger generation and their tendency to migrate to cities for lucrative jobs, a wealth of traditional knowledge is decreasing. The need of the hour is to harness this important traditional knowledge and preserve this traditional knowledge for the benefit of future generation.

### **Conclusion**

This survey shows the utilization of medicinal plants for maintaining their primary health care are still practiced in India. The study resulted in documenting 188 medicinal plant species where Lamiaceae is the leading family with the highest proportion of medicinal plants. From this survey we conclude that JSA Medical College for Siddha and Research Centre campus is enriched with very precious and medicinally useful plants. This valuable survey may be useful to improve the phytochemical and pharmacological application in the future.

### **Conflict of Interest**

On behalf of all authors, the corresponding author states that there is no Conflict of Interest.

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