

# Identification of plants and Its Medicinal Properties Using Deep Learning Adam Optimizer

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## **Abstract**

Livelihood is the achieved by major source of agriculture. In India employment can also be provided by Agricultural sources on larger scale. Developing countries are providing the employment as crucial pandemic time is going on so that many people are getting benefitted by agricultural means. Developing countries are having major source like 70% people are dependent on agricultural sources for their survival[1]. Due to non availability of technical education they are dependent on the cultivation of various variety of crops and vegetables. They are using the tradition ancient methods of cultivation. For better cultivation they are required to provide the knowledge of latest tools and techniques. They do not have enough guidance what climate and other means are required to get the maximum yield[2]. They need to be provided sessions to provide them awareness about the latest tools and which crop can be cultivated in which season and what are the factors responsible so that maximum yield can be achieved. When plants are affected by many diseases then cultivation is affected a lot. Chemical spraying effects the human health directly which is used by majority of farmers for disease protection. Identification of forthcoming diseased plants is also a big challenge for farmers. Detection of diseased plants are done by latest techniques. We have done the surveys for the identification of the diseased plants data[4].

**Keywords :- Pesticidal chemicals, crops, yield, seeds, harvesting.**

## I INTRODUCTION:

People in primitive societies from earliest times of human existence came to know the multifarious uses of plants and were the repository of vast knowledge of plants and their properties. The knowledge about plants has handed over through generation to generation. Ethnic people all over the world use an enormous range of wild plants for their daily needs, livelihood and healthcare. Since civilization an intricate relationship established between aboriginal people and plants Ethnobotany is the study of how people in human civilizations have used, handled, and perceived plants. This study takes into account the ways in which plants have been utilized for things such as food, medicine, dying, creating tools, currency, clothing, rituals, social life, and music. In the year (1895) Hershberger coined the term "ethnobotany" to describe the study of plants that were utilized by ancient civilizations and native peoples. According to Schulte's (1962), the study of interpersonal ties of ancient civilization and their botanical genesis is referred to as ethnobotany[1]. Additionally, according to Turner (1995) the science of human interactions with plants is referred to as ethnobotany. According to Cotton (1996) Ethnobotany is a broad term that embraces all disciplines that have an impact on the interaction between plants and indigenous peoples. This is because ethnobotany focuses on the relationship between plants and indigenous peoples[3]. According to Jain (2001) ethnobotany is the study of the entire range of natural and traditional relationships that exist between man and his plants and animals. Ethnobotany is regarded to be a branch of ethnobiology, which is a scientific discipline. It is in charge of the investigation and evaluation of plant-human relationships at all phases of development, as well as the impact of plant ecology on human societies[5].

II RELATED WORK

**1. Selection of Informants:** During the present study 36 key informants were selected on recommendation of knowledgeable elders and local authorities. The informants were selected from 8 villages of the study area[2][3].

The graph shows the total distribution of male and female informants in the following age classes which is shown below;

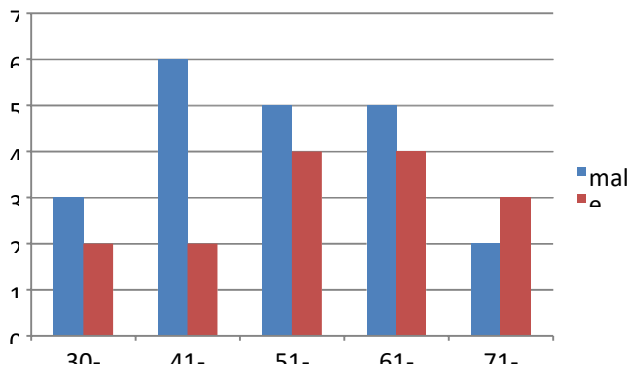


Figure 1 Data Set Description

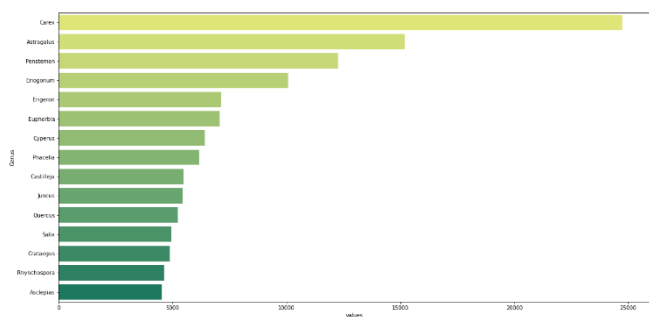


Figure 2 Data Sets

Table 1 : List of some ethnobotanical important plants species to cure Bites.

| Sr. No. | Name of Plant Species           | Local Name        | Family        | Plant Part Used | Mode Of Utilization  |
|---------|---------------------------------|-------------------|---------------|-----------------|--|
| 1       | <i>Syngonium podophyllum</i>    | Arro whea d       | Araceae       | Rhizome         | Remedy for the bite of Paraponera ants (2018)  |
| 2       | <i>Nyctanthes arbor-tristis</i> | harsingar         | Oleaceae      | Bark            | The bark is used for the treatment of snakebite (Santosh <i>et al.</i> , 2016)                   |
| 3       | <i>Celosia cristata</i>         | cockscomb         | Amaranthaceae | Whole plant     | The whole plant is used as an antidote for (and Gulshana2014)                                    |
| 4       | <i>Clinacanthus nutans</i>      | Shabh snake grass | Acanthaceae   | Leaves          | Fresh leaves used as anti-venom for snake scorpion and insect bites. (Chia <i>et al.</i> , 2021) |



Figure 3 Dracaena Reflexa ( Song of India)

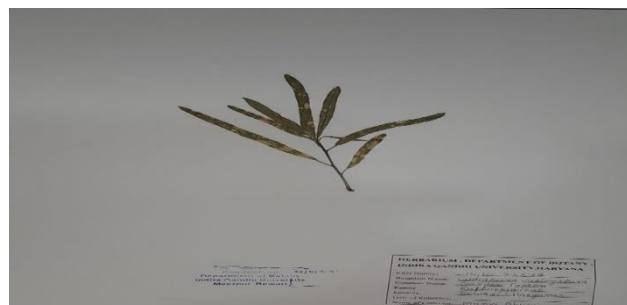


Figure 4 Codiaeum variegatum(Gardon Cration)

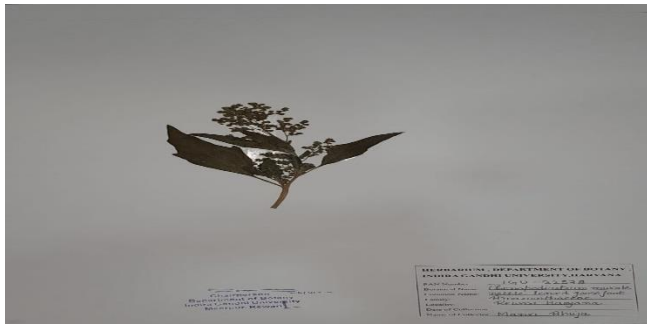


Figure 5 *Chenopodium murale*(nettle leaved goose foot)

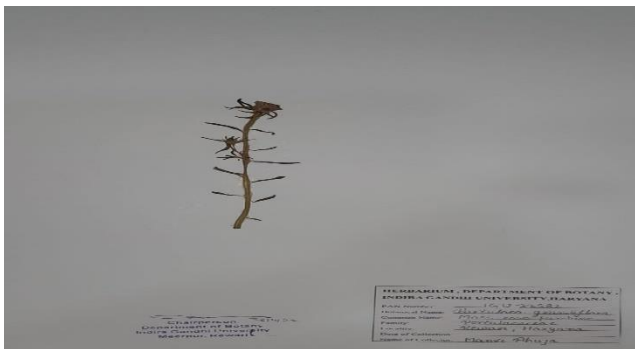


Figure 6 *Portulaca grandiflora*(mass rose purslane)



Figure 7 *Pelargonium inquinans*(scarlet geranium)



Figure 8 *Tradescantia pallida* (purple heart)



Figure 9 *Crassula Ewanta*(Jade Plant)

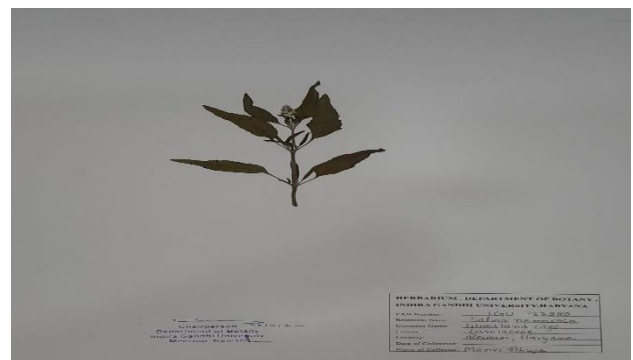


Figure 10 *Salvia nemorosa*(Woodland Sage Lamiaceae)

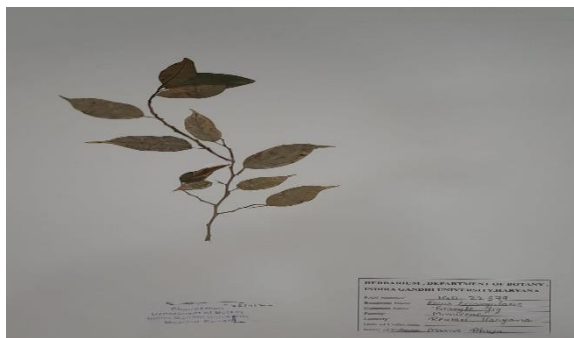


Figure 11 Ficus triangularis (Traingle Fig)

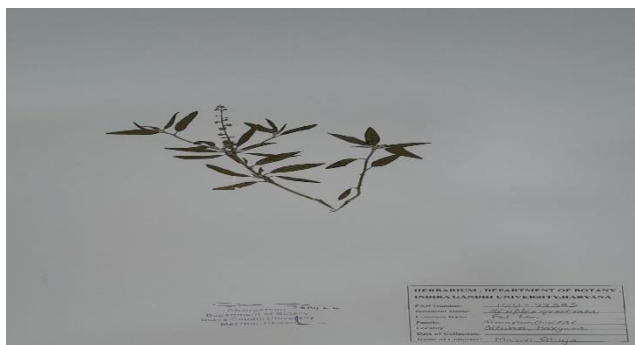


Figure 12 Broplex prastrata(Ent Hem)

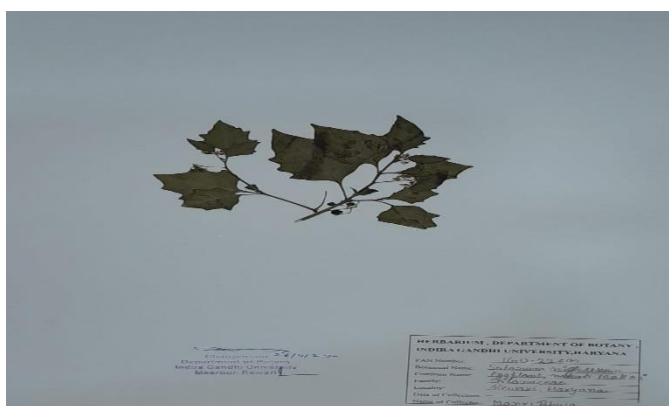


Figure 13 Solanium nigraum( Egg Plant)

**RESULTS AND DISCUSSION**

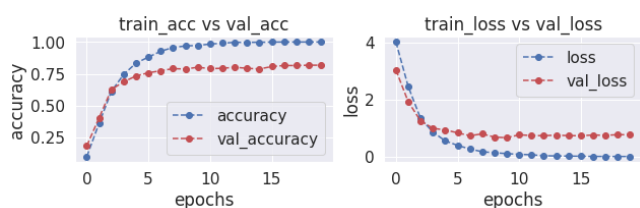


Figure 14 Model Accuracy Training and validation loss data

**Medicinal Plants Reported: -**

During the course of present research work a total of 38 species of medicinal plants were reported. The result is presented in tabular form. The table is prepared on the basis of diseases. The diseases are arranged in order and the scientific names of plant species are given with their local name, family name, plant part used and mode of use.

**Conclusion**

**Different Plants used in medicine**

Most of the reported medicinal plants were herbs, shrubs, trees, and climber. Percentage distribution of growth forms of documented medicinal plants were shown in the following picture

**References:**

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