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Investigation on Ethnomedicinal Plants of District Firozabad

Kalpana Singh*, Sweety Gupta and P.K. Mathur

**Department of Botany, BSA College, Mathura (U.P.)-281001, India.*

Abstract: A survey in Firozabad District has been done for documented ethnomedicinal plants. About 71 plants have reported in this manuscript which is used for various diseases. This manuscript is very useful for those who work with herbal plants.

Keywords: Firozabad, Ethnomedicinal, *Aegle marmelos* L., *Allium cepa*, Ethnobotanical.

1. Introduction

India is a veritable emporium of medicinal and aromatic plants. It has been estimated that out of 15,000 higher plants occurring in India. 9,000 are commonly used, of which 7,500 are medicinal, 3,900 are culturally important, 525 are used for fiber, 400 are for fodder, 300 for pesticide and insecticide, 300 for gum and resin, and 100 for incense and perfumes [1]. In terms of the plant materials used for traditional medicine, it is estimated that local communities have used over 7,500 plant species. Indian floras have innumerable medicinal plants, which are collected from the forest by the tribal villagers. Many of them are being exported to the developed countries. Since ancient times, humankind depended mainly on the plant kingdom to meet its need for medicine, fragrance and flavors. The Indian subcontinent is blessed with most varied and diverse soils and climatic conditions, which are suitable for the growth of almost every plant species. Usage of plants in medicine had been a long practice by man since ancient times. This practice of using plants in medicine is still prevailing among not only the tribal but also others living in the rural areas [2].

Tribal in this northern District of U.P. carried out the survey in remote villages of Distt. Firozabad to identify the common and cultivated medicinal plants and their utilization. The study area selected in Firozabad lies between 27°00' and 27°24' north latitude and 77°66' and 70°04' east longitude. It is bounded in north by Etah district, in east by Etawah and Mainpuri, in the south by Yamuna River and in the west by Agra district. The climate of Firozabad is characterized by hot summer, pleasant winter and general dryness except during rainy season.

2. Materials and Methods

During the course of exploration and collection, 51 villages of district Firozabad Were surveyed by conducting interviews with local traditional healers who prescribe their herbal Formulations and various ethnobotanical aspects i.e. utilization, domestication, conservation and phytoworship practices. The collected plant specimens were deposited in the department of Botany, B.S.A., P.G College, Mathura. Botanical names are arranged alphabetically followed by local names, family, plant part used and medicinal uses are listed in Table-1:-

*Corresponding author:
E-mail: chitranjansingh2009@gmail.com.

Table 1.

S. No.	Botanical Name	Local Name	Family	Plant parts	Medicinal uses
1.	*Acacia arabica* Willd.	Babul	Mimosaceae	All five parts	Weakness
2.	*Acacia catechu* Willd.	Kattha	Mimosaceae	Leaves	Wounds, Bleeding
3.	*Achyranthes aspera* L.	Latzeera	Amaranthaceae	Leaves	Dysentery, Fever, For Easy Delivery
4.	*Aegle marmelos* L.	bel	Rutaceae	Stem, fruit	To Keep Evil Spirit Away
5.	*Allium cepa*	Pyaj	Liliaceae	Fruit	Sunstroke, Blood Purifier
6.	*Allium sativum* Lam.	Lahsun	Liliaceae	Leaves, buds	Acidity
7.	*Argemone mexicana* L.	Pili Kateli	Papaveraceae	Juice	Wounds
8.	*Azadirachta indica*	Neem	Meliaceae	Leaves, stem	Skin Diseases, Tooth Problem
9.	*Bacopa monnieri* Linn.	Brahmi	Scrophulariaceae	Whole plant	To Cure Cough, Memory
10.	*Bauhinia purpurea* Linn.	Kachnar	Caesalpiniaceae	Fruit	To Cure Lymph Gland
11.	*Boerhavia diffusa* L.	Satha	Nyctaginaceae	Root	Short-Sightness
12.	*Brassica campestris* L.	Sarson	Brassicaceae	Seed	Suffering From Evil Eyes
13.	*Calotropis gigantea* L.	Madar	Asclepiadaceae	Leaves	Easy Delivery
14.	*Calotropis procera* (ait) r. br	Aak	Asclepiadaceae	Latex	To Reduce Toothache
15.	*Cannabis sativa* Linn.	Bhang	Cannabaceae	Seeds	For Cough
16.	*Cassia fistula* Linn.	Amaltas	Caesalpiniaceae	fruit	Skin Diseases, Fever
17.	*Cassia occidentalis* Linn.	Karonda	Caesalpiniaceae	Leaves	Tonsils Treatment
18.	*Cassia tora* Linn.	Pawar	Caesalpiniaceae	Seeds	To Cough
19.	*Catharanthus roseus* (L.) G.Don	Sadhabahar	Apocynaceae	Leaves	Dysentery
20.	*Centella asiatica* L. (Urb.)	Bramhi	Apiaceae	Stem, Leaves	Memory, Bronchitis, Rheumatic
21.	*Citrus limon* (christm)	Nimboo	Rutaceae	Fruit	Acidity Sunstroke
22.	*Cleome viscosa* L.	Bhera	Capparidaceae	Leaf	Dyspepsia, Jaundice
23.	*Crotalaria burhia* (Buch)	Bhuisan	Fabaceae	Leaf juice	To Remove Kidney Stones
24.	*Coriandrum sativum* L.	Dhania	Apiaceae	Fruit, Leaves	Diarrhoea
25.	*Coccinia grandis* (L)	Tonglia	Cucurbitaceae	Leaves	To Reduce Acidity, To Cure Piles
26.	*Cocculus hirsutus* (L)	Vasan	Menispermaceae	Leaves	Jaundice
27.	*Cuscuta reflexa* Lam	Amerbel	Cuscutaceae	Stem	To Remove Dandruff
28.	*Cynodon dactylon* (L)	Doob	Poaceae	Leaves	Blood Clotting
29.	*Datura metel* L.	Kaladatura	Solanaceae	Seeds	Abortion
30.	*Emblica officinalis* Gaertn.	Ambla	Euphorbiaceae	Fruit	Short-Sightness
31.	*Erythrina variegata* L.	Pangara	Papilionaceae	Stem, Leaf-bark	Fever, To Relieve Pain of Joints
32.	*Ficus benghalensis* L.	Barged	Moraceae	Leaf, Latex	Rheumatism, Lumbago
33.	*Ficus glomerata* Roxb.	Bark Gular	Moraceae	Fruit, Bark	Bark Diabetes, Dyspepsia
34.	*Ficus religiosa* L.	Pipal	Moraceae	Fruit, Leaves	Male & Female Fertility, Wounds
35.	*Holoptelea integrifolia* Roxb.	Chilbil	Ulmaceae	Bark	Hydrocele
36.	*Indigofera linnaei* Ali	Leel	Papilionaceae	Roots	To Cure Mouth Ulcer
37.	*Jatropha curcas* L.	Ratanjyot	Euphorbiaceae	Seed, Fruit	Dysentery
38.	*Jatropha gossypifolia L .*	Chandryjyot	Euphorbiaceae	Whole plant	Piles, Burn
39.	*Launaea procumbens* Roxb.	Bangobhi	Asteraceae	Leaf	Fever
40.	*Lawsonia inermis* L.	Mehandi	Lythraceae	Leaf	Boils And Burns, Scabies
41.	*Linum usitatissimum* L.	Alsi	Linaceae	Flower, Oil	Heart Diseases, Skin Diseases
42.	*Luffa cylindrica* L.	Ghia torai	Cucurbitaceae	Leaf	Body Swelling
43.	*Mangifera indica* Linn. Bark	Aam	Anacardiaceae	Bark, Seed	Diarrhea Cough
44.	*Melia azedarach* L.	Bakin	Meliaceae	Leaf	Anthelmintic, Piles
45.	*Morus alba* L.	shahtoot	Moraceae	Leaf	Dysentery
46.	*Musa paradisiaca* L.	Kela	Musaceae	Fruit	Dysentery
47.	*Nyctanthes arboritis*	Harsinghar	Oleaceae	Leaf	Fever
48.	*Ocimum basilicum* L.	Bantulsi	Lamiaceae	Stem	Respiratory Problem
49.	*Ocimum sanctum* L. *Labiatae*	Tulsi	Labiatae	Leave	Cough
50.	*Parthenium hysterophorus* L.	Gajarghass	Piperaceae	Flower, Leaf	Cold, Cuts and Wounds
51.	*Piper nigrum* L.	Kali mirch	Piperaceae	Fruit	Jaundice
52.	*Psidium guajava* L.	Amrood	Myrtaceae	Fruit	Jaundice, Acidity, Diabetes
53.	*Prosopis juliflora*	Vilayati babool	Mimosaceae	Bark	Leucorrhoea
54.	*Raphanus sativus* L.	Mooli	Brassicaceae	Leaf, Root	Acidity
55.	*Ricinus communis* L.	Arandi	Euphorbiaceae	Oil	Pneumonia, Body Pain
56.	*Rosa centifolia* L.	Gulab	Rosaceae	Flower	Eye Infection, Syphilis
57.	*Saraca asoca* (Roxb.)	Ashok	Caesalpiniaceae	Bark	Leucorrhoea, Anthelmintic, Piles
58.	*Sida cordifolia* L.	Khaente	Malvaceae	Root, Leaf	Dysentery
59.	*Solanum indicum* L.	Badi Kateri	Solanaceae	Fruit, Root	Bronchitis, Leprosy
60.	*Sonchus asper* (L.) *Hill*	Gubbi	Compositae	Leaf	Cuts & Wounds
61.	*Syzygium cumini* skeels	Jamun	Myrtaceae	Fruit	Diabetes
62.	*Syzygium heyneanum* Duthie	Kat-Jamun	Myrtaceae	Bark	Sunstroke
63.	*Tephrosia purpurea* Linn.	Sharfunkha	Fabaceae	Leaves, Juice	Amoebic Diarrhoea
64.	*Terminalia arjuna* Roxb.	Arjun	Combretaceae	Bark	Heart Diseases

65.	*Tinospora cordifolia* (Willd)	Gurch	Menispermaceae	Root	Jaundice, Snake Bite
66.	*Tribulus terrestris* L.	Chota-Gokhuru	Zygophyllaceae	Root, Fruit	Male Weakness
67.	*Tridax procumbens* L.	Ekdandi	Asteraceae	Leaf	Cuts & Wounds
68.	*Vitex negundo* L.	Nirgudi	Verbenaceae	Root	Root Swellings
69.	*Withania somnifera* Dunal	Aswagandha	Solanaceae	Root	Sex Diseases
70.	*Xanthium strumarium* L.	Kuthuru	Asteraceae	Leaf, Seeds	Malaria, Chronic Conjunctivitis & Inflammation of Eye
71.	*Ziziphus mauritiana* Lamk.	Ber	Rhamnaceae	Leaf	Stye of Eye

3. Results and Discussion

Plant species belonging to 62 genera and 71 species of families are being used by most of the local people for the treatment of common diseases. The dose is prepared by using juice, leaf, bark extracts and other parts of the plant [3-9].

From earlier times people made use of plants for their basic needs Medicare and livelihood. Some plants used by people are cultivated while others grow in wild conditions. The tribal depends predominantly on plants for food, clothing, medicine, oil, agricultural implements, art, crafts, huts and for other requirements. Plant species were also used to prevent abortion, achieve easy delivery, eye, gastric, respiratory problems, fever, antidote for snake and scorpion bites, sunstroke, arthritis, hydrocele, toothache, cough, dysentery, jaundice and sexual power [10-15].

4. Conclusion

The majority of plant species belong to families Mimosaceae, Liliaceae, Papaveraceae, Brassicaceae, Apocynaceae, Poaceae, Asteraceae, Euphorbiaceae, Papilionaceae and Myrtaceae. Among these 68 plant species belong to Dicot and 03 to Monocots. Out of which 43.66% are tree, 22.54% shrubs, 29.58% herbs and 2.47% creepers. The percentage of plant parts used is as follows-Fruit = 22.54%, Leaves = 45.075%, Root = 12.68%, Bark = 11.27%, Seed = 8.45%, Stem = 8.45%, Whole plant = 4.23%, Flowers=4.23%, Bud = 1.41%, juice=5.63%, Latex=2.82%, Oil=2.82%. The percentage study adds to the earlier knowledge regarding the use of plants in the treatment of common diseases.

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