

Unani Medicinal Plants Used in Gynological Disorders from Tehsil Joginder Nagar, District Mandi, H.P., India

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Abstract- Most population of India has been using the herbal medicine since time immemorial and medicinal plants are not only the source of herbal medicines but also plays major role in pharmaceutical industry. Keeping in view the importance medicinal plants and increasing demand of herbal medicines, the present study has been carried out in different areas of tehsil Joginder Nagar during April 2012 to December 2013, because tehsil Joginder Nagar is repository of medicinal important floral diversity due to suitable environmental conditions. India has six recognized systems of medicine (Ayurveda, Siddha, Unani, Yoga, Naturopathy and Homoeopathy). Maximum rural and some urban population are dependent for their health care on Unani system of Medicine due to low cost and safe health care solution. Total 83 species belonging to 58 families and 79 genera were recorded from the study areas. All plant species are provided along with their Botanical name, Family name, Local name, Ayurvedic name and part used. A checklist has been prepared after comparing with the existing literature of Unani System of Medicine and especially with the list of medicinal plant used in Unani System of Medicine for abortifacient, emmenagogues, stimulant and depressant action on uterine muscle given in Hamdard Pharmacopoeia of Eastern Medicine.

Index Terms- Medicinal plant, Indian System of Medicine, Abortifacient, Emmenagogues and Families.

I. INTRODUCTION

Plants are one of the most important sources of medicines and offer low cost and safe health care solutions. In India more than 15,000 plant species have been recorded by Botanical Survey of India, of which about 7,500 species have been used for medicinal purposes (Mazid et.al, 2012). India is the largest producer of medicinal herbs and is called as botanical garden of the world and it has six recognized systems of medicine i.e. Ayurveda, Siddha, Unani, Yoga, Naturopathy and Homoeopathy. Plants are also used in the number of modern medicines (Ravishankar & Shukla, 2007).

The Unani system of medicine originated in Greece and believed to have been established by Hippocrates (460-377 BC). Hippocrates is known as the father of this system of medicine. This system of medicine has been introduced by the Arabs in India. India has rich wealth of important medicinal flora due to variable climatic conditions. Unani system of medicine is practiced India, Pakistan, Bangladesh and Srilanka. Maximum rural and some urban population are dependent for their health care on Unani system of Medicine. According to the principles of Unani medicine, disease is a natural process and its symptoms

are the reactions of the body to the disease. Unani medicine is based on the 'Humoral Theory'. Body obtains their nourishment from four humors i.e blood, phlegm, black bile and yellow bile. Disease occurs whenever the balance of humors is disturbed. In Unani medicine, single drugs or their combinations in raw forms are preferred over compound formulations. The naturally occurring drugs used in this system are usually free from any side effects (Anonymous, 1998; Ravishankar & Shukla, 2007). Himachal Pradesh is situated in the Western Himalaya region and having a variety of medicinal plants in wild states due to favourable environmental conditions. The present study was undertaken to collect and making permanent record of medicinally important floristic diversity of tehsil Joginder Nagar, District Mandi of Himachal Pradesh. It is situated between 31° 50' N and 76° 45' E and bears the richest and most varied flora due to variable altitudinal and climatic conditions. Maximum people of rural areas depend on forest for their livelihood and numbers of people also use various plants for their health care. About 27% populations depend on forest for their livelihoods in India (Anonymous, 2006). Various such types of studies has been carried out on diversity of medicinal and aromatic plants in different regions of Himachal Pradesh [Ahluwalia, 1952; Rastogi, 1960; Sood, et. Al, 2009; Uniyal and Chauhan, 1971], but many biodiversity rich areas are still unexplored. Keeping in view the importance of phytodiversity and demands of medicinal plant in the pharmaceutical industries and especially in the Indian system of Medicine, this study was carried out in order to conserve the knowledge about medicinal plants of tehsil Joginder Nagar.

II. MATERIAL AND METHODS

The field trips were arranged during the period of April 2012 to December 2013 in different areas of Tehsil Joginder Nagar. The plant specimens collected during field visits were pressed and dried using blotting papers for about two to three weeks at room temperature. The collected plant specimens were dipped in the solution of 2% mercuric chloride for 15-20 minutes in order to provide protection against insects and fungal attack. After poisoning, the plants were mounted on the herbarium sheets. The collected specimens were identified with the help of the various flora and books (Sood et. al, 2009; Polunin and Stainton, 1984 and Chatterjee and Pakrashi, 1991) and carefully matched with the specimens kept at herbarium of Botanical Survey of India, Dehradun. All the plant specimens were arranged alphabetically and enumerated along with their Botanical name, Family name, Local name, Unani name. A checklist has been prepared after comparing with the existing literature of Unani System of

Medicine and especially with the list of medicinal plant used in Unani System of Medicine for abortifacient, emmenagogues, stimulant and depressant action on uterine muscle (Anonymous, 1997).

III. RESULTS AND DISCUSSIONS

The present study records 83 plant species of 79 genus and 58 families belonging to three distinct taxonomic groups i.e. angiosperms, gymnosperms and pteridophytes. Out of these 58 families, 55 belong to angiosperms, 2 belong to gymnosperms and only one to pteridophytes. Among the dominant families, Fabaceae represented with maximum number of species i.e. 6; followed by Asteraceae and Apocynaceae with 4 species each; Euphorbiaceae, Lamiaceae and Oleaceae with 3 species each; Alliaceae, Apiaceae, Cucurbitaceae, Lauraceae, Malvaceae, Rosaceae, Rubiaceae and Solanaceae with two species each and remaining 44 families were with single species only (Fig. 1).

All plant specimens were collected from the area of tehsil Joginder Nagar. All plant species were provided with Botanical name, Family name, local name and Unani name (Table-1). An analysis of the species shows that (80 species) 96.39 % angiosperms, (2 species) 2.41% gymnosperms and (one species) 1.20 % pteridophytes (Fig. 2). Out of 55 families of angiosperms 47 (71 species) were Dicotyledons and 8 (9 species) were Monocotyledons.

These 83 medicinal plant species were used in Unani System of Medicines in curing gynecological disorders of which 22 plant species were used for abortifacient, 56 for emmenagogues, 4 species having stimulant action on uterine muscles and 13 species having depressant action on uterine muscles (Fig. 3). *Aristolochia indica*, *Artemisia vulgaris*, *Cannabis sativa*, *Carica papaya*, *Celastrus paniculatus* and *Momordica charantia* were used for abortifacient and emmenagogues; *Berberis aristata*, *Butea monosperma*, *Hibiscus rosa-sinensis* and *Saraca asoca* were used for emmenagogues and also have depressant action on uterine muscles; *Allium sativum*, *Cinnamomum zeylanicum* and *Sesamum orientale* were used for emmenagogues and have stimulant action on the uterine muscles; *Punica granatum* were used for abortifacient and also have depressant action on the uterine muscles (Anonymous, 1997).

Plant diversity is one of the major resources that fulfill the needs of human beings i.e food, fodder, fibers and medicines etc. Almost 70% of modern medicines in India are derived from wild sources. According to WHO, 80% of the world population

depends on herbal medicines for their health care, especially in developing countries (Verma & Singh, 2008) and utilization of herbal medicines is increasing in developed countries also. Natural phyto-diversity is under various threats due to over exploitation, urbanization, habitat destruction, increased demand of herbal material in pharmaceutical industries and climate changes. Various studies has been carried out on phyto-diversity of Himachal Pradesh [Hooker (1872-1897); Collet (1902)] and on diversity of medicinal and aromatic plants in different regions of Himachal Pradesh [Ahluwalia, 1952; Sood, et.al, 2009; Uniyal and Chauhan, 1971], but many biodiversity rich areas are still unexplored including tehsil Joginder Nagar. The selected study area shows great medicinal important floral diversity due to suitable climatic conditions. So there is need to explore, document and conserve the natural diversity, because large proportions of the world's population depends on herbal medicine for their health care.

IV. CONCLUSION

During the course of study, 83 plant species belonging to 58 families were recorded. Out of 55 families of angiosperms 47(71 species) were Dicotyledons and 8 (9 species) Monocotyledons. Plant diversity is one of the major resources that fulfill the needs of human beings. People of rural areas totally depend on biodiversity for their food, fuel, fodder, timber, medicines and other purposes. According to WHO, 80% of the world population depends on herbal medicines for their health care, especially in developing countries (Verma & Singh, 2008). The floral diversity is under various threats due to over exploitation and increased demand of herbal raw material in pharmaceutical industrialization, habitat destruction and climate changes. The selected study area shows great medicinal important floral diversity. So, there is need to explore and collect the information of medicinal important floristic diversity of unexplored areas to conserve natural resources for coming generations.

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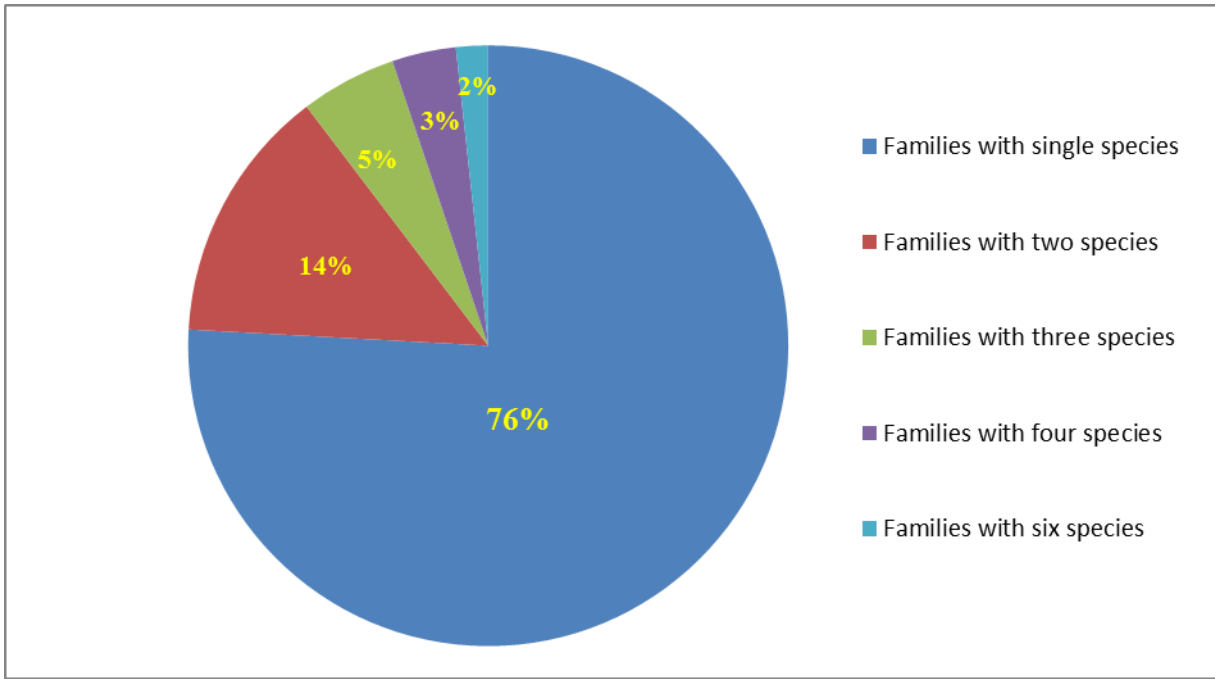


Fig.1. Distribution of families with number of species.

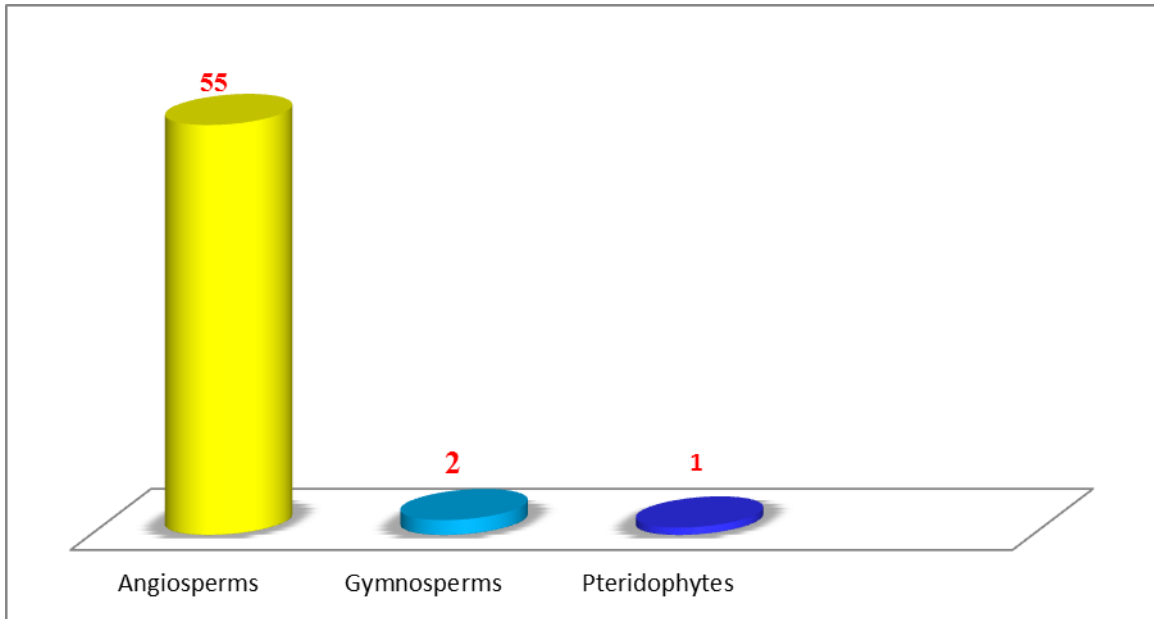


Fig.2. Taxonomic group with number of families.

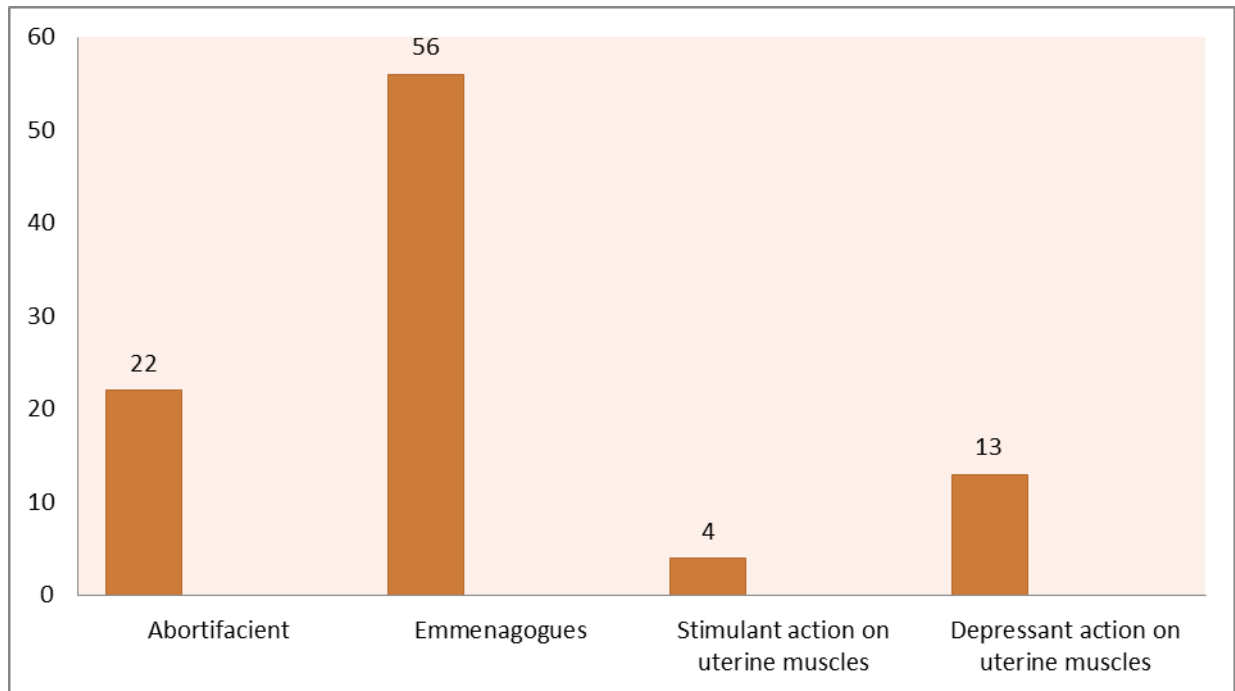


Fig. 3. Number of plants used for different gynecological disorders.

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Table. 1. List of medicinal plant used in Unani for gynecological disorders

S.N.	Botanical Name	Family	Local Name	Unani Name	Abortifacient	Emmenagogues	Stimulant action on uterine muscles	Depressant action on uterine muscles
1	<i>Abroma augusta</i> Linn.	Sterculiaceae	Ulatkambal, Olatkambal	Ulatkambal	-	+	-	-
2	<i>Abrus precatorius</i> Linn.	Papilionaceae; Fabaceae	Rati	Ghongchi	+	-	-	-
3	<i>Achillea millefolium</i> Linn.	Asteraceae	Kashmiri akarkara	Biranjasiif	-	+	-	-
4	<i>Achyranthes aspera</i> Linn.	Amaranthaceae	Puthkanda	Chirchita (Latjira)	+	-	-	-
5	<i>Acorus calamus</i> Linn.	Araceae	Bare, Bach	Bach	-	+	-	-
6	<i>Adhatoda vasica</i> Nees	Acanthaceae	Bansa, Basti, Basunti,	Bansa	-	+	-	-
7	<i>Adiantum capillus-veneris</i> Linn.	Adiantaceae	Hansraj or Hanspadi,	Hansraj (Sassia)	-	+	-	-
8	<i>Agave americana</i> Linn.	Agavaceae	Ramban	Jungli kanwar	-	+	-	-
9	<i>Allium cepa</i> Linn.	Liliaceae; Alliaceae	Piyaz	Piyaz	-	+	-	-
10	<i>Allium sativum</i> Linn.	Alliaceae	Lasun, Lasan	Lehsun	-	+	+	-
11	<i>Aloe barbadensis</i> Mill.	Liliaceae	Kawar, Ghi-Kawar	Gheekwar	-	+	-	-
12	<i>Alstonia scholaris</i> R. Br.	Apocynaceae	Saptaparni	Satveni	-	+	-	-
13	<i>Aristolochia indica</i> Linn.	Aristolochiaceae	Isharmul	Zarawande Hindi, Isharmul	+	+	-	-
14	<i>Artemisia vulgaris</i> Linn.	Asteraceae	Nagdamani	Nagadamni	+	+	-	-
15	<i>Berberis aristata</i> DC.	Berberidaceae	Kashmal, Panjolu	Darhald, Zarishk	-	+	-	+
16	<i>Bombax ceiba</i> Linn.	Bombacaceae	Semal, Simbal	Tukhm-e-Sambhalu	-	-	-	+
17	<i>Butea monosperma</i> (Lam.) Kuntze	Papilionaceae; Fabaceae	Palas	Dhak, Chunnia Gond	-	+	-	+
18	<i>Cannabis sativa</i> Linn.	Cannabinaceae	Bhang	Bhang	+	+	-	-
19	<i>Carica papaya</i> Linn.	Caricaceae	Papita, Papeeta	Papeeta	+	+	-	-
20	<i>Cedrela toona</i> Roxb.	Meliaceae	Tunni	Khursing	-	+	-	-
21	<i>Celastrus paniculatus</i> Willd.	Celastraceae	Malkangani	Mal Kangni	+	+	-	-
22	<i>Centella asiatica</i> (Linn.) Urban	Apiaceae	Mindkali, Brahami	Kula Kudi	-	+	-	-
23	<i>Cinnamomum camphora</i> (Linn.) Nees & Eberm.	Lauraceae	Kapur	Kafur	-	-	+	-

24	<i>Cinnamomum zeylanicum</i> Breyn.	Lauraceae	Dalchini	Darchini, Taj Qalmi	-	+	+	-
25	<i>Cissampelos pareira</i> Linn.	Menispermaceae	Bhatindu	Akanadi	-	+	-	-
26	<i>Crinum asiaticum</i> Linn.	Amaryllidaceae	Sukhdarshan	Pindar, Sukhdarshan	-	+	-	-
27	<i>Curcuma longa</i> Linn.	Zingiberaceae	Haladi	Haladi	-	+	-	-
28	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Akashbel, Amarbel	Kasoos	+	-	-	-
29	<i>Cyperus scariosus</i> R. Br.	Cyperaceae	Nagarmotha	Nagarmotha	-	+	-	-
30	<i>Dalbergia sissoo</i> Roxb.	Papilionaceae; Fabaceae	Shisham, Tali	Seesham	+	-	-	-
31	<i>Dolichos lablab</i> Linn.	Papilionaceae; Fabaceae	Sem	Sem	-	+	-	-
32	<i>Euphorbia hirta</i> Linn.	Euphorbiaceae	Dudhli, Dudhi	Dudhi	-	-	-	+
33	<i>Ficus benghalensis</i> Linn.	Moraceae	Bargad	Kesha-e-Bargad	-	-	-	+
34	<i>Foeniculum vulgare</i> Mill.	Apiaceae	Saunf	Bari Saunf	-	+	-	-
35	<i>Helianthus annuus</i> Linn.	Asteraceae	Surajmukhi	Suraj Mukhi	-	+	-	-
36	<i>Hibiscus rosa-sinensis</i> Linn.	Malvaceae	China Rose, Japa	Gurhal	-	+	-	+
37	<i>Hypericum perforatum</i> Linn.	Hypericaceae	Bassant	Dadi	-	+	-	-
38	<i>Jasminum grandiflorum</i> Linn.	Oleaceae	Malti, Chameli, Jati	Motia	-	+	-	-
39	<i>Jasminum multiflorum</i> (Burm.f.) Andr.	Oleaceae	Chameli	Kundphal	+	-	-	-
40	<i>Jasminum sambac</i> (Linn.) Ait.	Oleaceae	Banmallika	Mogra	-	+	-	-
41	<i>Linum usitatissimum</i> Linn.	Linaceae	Alsi	Alsi	-	+	-	-
42	<i>Luffa acutangula</i> (Linn.) Roxb.	Cucurbitaceae	Kali Tori, Jhinga Tori	Torai, Vachi, Perungacha	+	-	-	-
43	<i>Mirabilis jalapa</i> Linn.	Nyctaginaceae	Gulabansh	Gul-e-Abbas	-	-	-	+
44	<i>Momordica charantia</i> Linn.	Cucurbitaceae	Karela	Karela	+	+	-	-
45	<i>Moringa oleifera</i> Lam.	Moringaceae	Sunaney	Sahanjana	+	-	-	-
46	<i>Mucuna prurita</i> Hook.	Papilionaceae; Fabaceae	Kaunch bel	Kiwach	-	+	-	-
47	<i>Nerium indicum</i> Mill.	Apocynaceae	Kaner	Kaner	+	-	-	-
48	<i>Ocimum basilicum</i> Linn.	Lamiaceae	Bhabri	Tulsi	-	+	-	-
49	<i>Origanum vulgare</i> Linn.	Lamiaceae	Basla-ghas	Mirzanjosh	-	+	-	-
50	<i>Papaver somniferum</i> Linn.	Papaveraceae	Afim	Tukhm-e-Khashkhash				
51	<i>Phyllanthus urinaria</i> Linn.	Euphorbiaceae	Bhumi-amla, Bumi-amla	Hazarmani	-	+	-	-
52	<i>Pinus roxburghii</i> Sarg.	Pinaceae	Chil, Chir, Cheel	Chir	-	+	-	-

53	<i>Piper longum</i> Linn.	Piperaceae	Magha	Pipal	-	+	-	-
54	<i>Plantago major</i> Linn.	Plantaginaceae	Isafghol	Bartang				
55	<i>Plumbago zeylanica</i> Linn.	Plumbaginaceae	Chitrak	Chitra	+	-	-	-
56	<i>Polygonum hydropiper</i> Linn.	Polygonaceae	Ghaniri	Packarmul	-	+	-	-
57	<i>Prunus persica</i> Betsch	Rosaceae	Aru, Adu	Aaru	-	+	-	-
58	<i>Punica granatum</i> Linn.	Punicaceae	Daadu, Anar	Anar	+	-	-	+
59	<i>Randia dumetorum</i> Poir.	Rubiaceae	Rada	Mainphal	+	-	-	-
60	<i>Ranunculus sceleratus</i> Linn.	Ranunculaceae	Jaldhania	Kabikaj	-	+	-	-
61	<i>Raphanus sativus</i> Linn.	Brassicaceae	Muli	Muli	-	+	-	-
62	<i>Rauwolfia serpentina</i> Benth. ex Kurz	Apocynaceae	Sarpagandha	Asrol	+	-	-	-
63	<i>Ricinus communis</i> Linn.	Euphorbiaceae	Arand, Erna	Arand	-	+	-	-
64	<i>Rosa damascena</i> Mill.	Rosaceae	Gulab	Zar-e-ward	-	-	-	+
65	<i>Rubia cordifolia</i> Linn.	Rubiaceae	Manjith, Majit	Majeeth	-	+	-	-
66	<i>Saraca asoca</i> (Roxb.) De Wilde	Caesalpiniaceae	Asoka	Ashok	-	+	-	+
67	<i>Sesamum orientale</i> Linn.	Pedaliaceae	Til	Til	-	+	+	-
68	<i>Siegesbeckia orientalis</i> Linn.	Asteraceae	Teenpathi, Kanumuchi	Katampam	-	+	-	-
69	<i>Solanum nigrum</i> Linn.	Solanaceae	Makoya, Makoi	Mako	+	-	-	-
70	<i>Symplocos racemosa</i> Roxb.	Symplocaceae	Lodhra	Lodh Pathani	-	-	-	+
71	<i>Taxus baccata</i> Linn.	Taxaceae	Rakhal	Birmi	-	+	-	-
72	<i>Terminalia arjuna</i> (Roxb.) Wight & Arn.	Combretaceae	Arjun	Arjun	-	-	-	+
73	<i>Thevetia neriifolia</i> Juss. ex Steud.	Apocynaceae	Kaner	Pila Kanner	+	-	-	-
74	<i>Thymus serpyllum</i> Linn.	Lamiaceae	Banajwain, Banajown	Hasha	-	+	-	-
75	<i>Trigonella foenum-graecum</i> Linn.	Papilionaceae; Fabaceae	Methi	Methi	-	+	-	-
76	<i>Urena lobata</i> Linn.	Malvaceae	Van -bhenda	Pivan	+	-	-	-
77	<i>Urtica dioica</i> Linn.	Urticaceae	Bichhu booti	Bichu	-	+	-	-
78	<i>Valeriana wallichii</i> DC.	Valerianaceae	Mushkbala, Sugandhbala	Mushki Wali, Asarun	-	+	-	-
79	<i>Vetiveria zizanioides</i> (Linn.) Nash	Poaceae	Khas-khas	Khas	-	+	-	-

80	<i>Vitex negundo</i> Linn.	Verbenaceae	Banaha, Bana, Suro	Sambhalu	-	+	-	-
81	<i>Vitis vinifera</i> Linn.	Vitaceae	Angur	Kishmish	-	+	-	-
82	<i>Withania somnifera</i> Dunal	Solanaceae	Asgandh	Asgand	+	-	-	-
83	<i>Woodfordia fruticosa</i> Kurz	Lythraceae	Dhataki	Gil-e-Makhtom	-	-	-	+