

Knowledge of ethnoveterinary medicine in the Maharashtra State, India

Somkuwar S.R.^{1*}, Chaudhary R.R.², Chaturvedi A.³

¹Department of Botany, Dr. Ambedkar College, Deekshabhoomi, Nagpur, India.

²Department of Botany, Institute of Science, Civil lines, Nagpur, India.

³P. G. Department of Botany, RTM Nagpur University, Nagpur, India.

Correspondence Address: * Subhash R. Somkuwar, Department of Botany, Dr. Ambedkar College, Deekshabhoomi, Nagpur, India.

Abstract

The present study deals with the plants used to treat common diseases in cattle and pet animals in the tribal belts of Maharashtra state, India. For the purpose of the ethnoveterinary practices, 198 plant species belonging to 79 families were identified. The present study reveals that the leaves constituted the major portion of plant parts used (30.158%), followed by root (15.079%) and bark (13.09%). The findings of the present study show considerable potential for further scientific research on these plant species, which can lead to development of cheaper and more efficacious drugs for future use not only to cattle but also can be useful to human too.

Keywords: Ethnoveterinary medicine, Maharashtra, India

Introduction

Ethno-Veterinary Medicine (EVM) or Veterinary Anthropology refers to holistic and interdisciplinary study of traditional knowledge, skills, methods, practices and folk beliefs of the people about the health care, healthful husbandry and production of livestock¹. It encompasses information on diseases and their control; remedies and clinical practices for treatment and prevention; management, feeding and breeding strategies; spiritual elements; and the human resources that hold the information and experience². The use of plant based veterinary medicine is increasing in the recent times. Some relevant literature on ethnoveterinary medicinal plant have been cited for Africa³⁻⁶, America⁷⁻¹¹, Europe¹² and Asia¹³⁻¹⁹ are indicative of this growing interest.

It is observed that several workers, documented ethnoveterinary practices in various districts and states of India²⁰⁻⁴⁷ with different lines of researches in Ethnoveterinary plant species used in curing the various ailments of livestock. A number of ethnoveterinary studies have been conducted in many parts of India but still no work has been done in Maharashtra state. Therefore, a study was conducted to record the information on ethnoveterinary practices being followed in Maharashtra state of India.

Maharashtra, a state of India occupies the western and central part of the country and has a long coastline stretching nearly 720 kilometres along the Arabian Sea., Maharashtra state covers a substantial portion of the Deccan plateau in the western peninsular part of the subcontinent. Its shape

roughly resembles a triangle. Maharashtra is bounded by the Indian states of Gujarat to the northwest, Madhya Pradesh to the north, Chhattisgarh to the east, Andhra Pradesh to the southeast, Karnataka to the south, and Goa to the southwest and by the union territory of Dadra and Nagar Haveli and the Arabian Sea to the west. The Western Ghats (or the Sahyadri Mountain range) provide a physical backbone to the state on the west, while the Satpura Hills along the north and Bhamragad-Chiroli-Gaikhuri ranges on the east serve as its natural borders. Maharashtra is the third largest state by area in India.

Materials and methods

Regular field trips were conducted in order to gather information on wild ethnoveterinary medicinal plants. Interviews were conducted from elderly farmers, shepherds, livestock holders and village head belonging to Korku, Gond, Aandh, Bhil, Koli, Kaware, Dhanwar, Kharia, Gowari, Thakar, Warli, Halba, Kokna, Katkari, Dangar, Kolam, Gavali, Gosavi, Mana, Kunbi, Pardhi and Pardhan tribes. Repeated queries were made to verify the data. The data are based on first hand information gathered from the above group of people and through personal observation. The data were cross checked with different informants. The method adopted for investigations are those of (Schultes 1962)⁴⁸ and (Jain 1984; 1987 and 1991)⁴⁹⁻⁵¹. The plant materials of the present study were collected from the study area. Efforts were made to collect the plant materials in flowering and fruiting conditions for the correct botanical identification. The plants were identified with the help of Flora of Presidency of Bombay⁵², Flora of Nagpur

district⁵⁹, The Flora of British India⁵³, Flora of Maharashtra state (Monocotyledons)⁵⁵, Flora of Kolhapur District⁵⁶, Flora of Raigad District⁵⁷, Flora of Madras Presidency⁵⁸ and Flora of Savantwadi & Maharashtra state⁶⁰⁻⁶¹. The voucher specimen of the plant has been deposited in Dept. of Botany Dr. Ambedkar College, Deekshabhoomi, Nagpur for further reference.

Results and discussion

The plant species are arranged in alphabetical order according to scientific names for convenience. For each given plant species details of the botanical name, family, local name and part used are provided. A total of 198 plant species distributed in 79 families has been recorded in the study region. The results are summarized in Table 1 and 2. The family Pappilionaceae have appeared to be the dominant family with ten plant species. The Euphorbiaceae (08), Liliaceae (08), Solanaceae (08), Apocynaceae (06), Asteraceae (06), Caesalpiniaceae (06), Cucurbitaceae (06), Lamiaceae (06), Rubiaceae (06), and Verbenaceae (06), families were represented by plant species mentioned in the bracket per family. The various plant parts used included in the table 1. The other plant part includes bulb, tuber, rhizome, flower, and gum. Leaves constituted the major portion of plant parts used (30.158%), followed by root (15.079%) and bark (13.09%). The findings of the present study show considerable potential for further scientific research on these plant species, which can lead to development of cheaper and more efficacious drugs for future use not only to cattle but also can be useful to human too.

Table 1: Plant parts used and its percentage.

Plant part used→	Leaf	Root	Bark	Stem	Seed	Fruit	Whole plant	Other
No. of plant species	76	38	33	25	23	22	10	21
Percentage	30.158	15.079	13.09	9.920	9.126	8.730	3.968	8.331

Table 2: Plant species used in ethnoveterinary medicine.

Sr. No.	Botanical Name	Family	Local Name	Part used
1	<i>Abelmoschus manihot</i> L. Medik.	Malvaceae	<i>Ranbhendi</i>	Root
2	<i>Abrus precatorius</i> L.	Papilionaceae	<i>Gunj</i>	Root
3	<i>Acacia catechu</i> L. Willd.	Mimosaceae	<i>Khair</i>	Stem
4	<i>Acacia leucophloea</i> Roxb. Willd.	Mimosaceae	<i>Hiwar</i>	Leaf
5	<i>Acacia nilotica</i> L. Del.	Mimosaceae	<i>Babul</i>	Stem
6	<i>Achyranthes aspera</i> L.	Amaranthaceae	<i>Aaghada</i>	Root
7	<i>Acorus calamus</i> L.	Arecaceae	<i>Vekhand</i>	Root
8	<i>Adhatoda vasica</i> (L.) Nees.	Acanthaceae	<i>Adulsa</i>	Leaf, Stem
9	<i>Aegle marmelos</i> (L.) Corr.	Rutaceae	<i>Bel</i>	Leaf, Fruit
10	<i>Agave americana</i> L.	Agavaceae	<i>Ghaypat</i>	Leaf
11	<i>Ageratum conyzoides</i> L.	Asteraceae	<i>Bhutakuli</i>	Leaf
12	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	<i>Maharukh</i>	Leaf
13	<i>Alangium salvifolium</i> L.	Alangiaceae	<i>Akola</i>	Bark
14	<i>Allium cepa</i> L.	Liliaceae	<i>Kanda</i>	Bulb
15	<i>Allium sativum</i> L.	Liliaceae	<i>Lasun</i>	Bulb
16	<i>Aloe vera</i> L.	Liliaceae	<i>Kalabanda</i>	Leaf
17	<i>Alstonia scholaris</i> L. R.Br.	Apocynaceae	<i>Saptpurni</i>	Bark
18	<i>Alternanthera sessilis</i> (L.) R.Br.e	Amaranthaceae	<i>Madaranga</i>	Root
19	<i>Andrographis paniculata</i> Burm. f.	Acanthaceae	<i>Bhuineem</i>	Whole plant
20	<i>Anisomeles indica</i> Kuntze Chinna	Lamiaceae	<i>ranabari</i>	Leaf
21	<i>Annona reticulata</i> L.	Annonaceae	<i>Ramaphalam</i>	Leaf
22	<i>Annona squamosa</i> L.	Annonaceae	<i>Sitaphal</i>	Seed, Root
23	<i>Anogeissus latifolia</i> Roxb. ex DC	Combretaceae	<i>Dhawada</i>	Bark
24	<i>Argemone mexicana</i> L.	Papaveraceae	<i>Piwladhotra</i>	Leaf, Seed
25	<i>Aristolochia bracteolata</i> Lamk.	Aristolochiaceae	<i>Gindhan</i>	Leaf
26	<i>Aristolochia indica</i> L.	Aristolochiaceae	<i>Niruki</i>	Root
27	<i>Asparagus racemosus</i> Willd.	Liliaceae	<i>Shatawari</i>	Root
28	<i>Asphodelus tenuifolius</i> L.	Liliaceae	<i>Jangali kanda</i>	Bulb
29	<i>Azadirachta indica</i> (A.) Juss.	Meliaceae	<i>Neem</i>	Leaf, Seed
30	<i>Balanites egyptiaca</i> L.	Simaroubaceae	<i>Hingna</i>	Seed endosperm
31	<i>Baliospermum montanum</i>	Euphorbiaceae	<i>Danti</i>	Stem, Root
32	<i>Barleria prionites</i> L.	Acanthaceae	<i>Katekoranti</i>	Leaf, Bark
33	<i>Boerhaavia diffusa</i> Linn.	Nyctaginaceae	<i>Punarnawa</i>	Leaf
34	<i>Bombax ceiba</i> L.	Bombacaceae	<i>Savar</i>	Stem, Bark, Seed
35	<i>Bombusa arundinaceae</i> Retz. Wiild.	Poaceae	<i>Bomboo</i>	Leaf
36	<i>Borassus flabellifer</i> L.	Arecaceae	<i>Tal</i>	Flower
37	<i>Boswellia serrata</i> Roxb. ex. Colebr.	Burseraceae	<i>Salai</i>	Fruit
38	<i>Brassica nigra</i> L.	Brassicaceae	<i>Avalu</i>	Seed
39	<i>Bryophyllum pinnatum</i> (Lam.) Kurz	Crassulaceae	<i>Panfuti</i>	Leaf
40	<i>Butea monosperma</i> Lamk.	Papilionaceae	<i>Palash</i>	Flower, Seed
41	<i>Byttneria herbacea</i> Roxb.	Byttneriaceae	<i>Piplamul</i>	Whole plant
42	<i>Caesalpinia bonduc</i> (L.) Roxb.	Caesalpiaceae	<i>Sagargoti</i>	Seed
43	<i>Calotropis gigantea</i> R.Br.	Asclepiadaceae	<i>Rui</i>	Root

44	<i>Calotropis procera</i> (Willd.) R.Br.	Asclepiadaceae	<i>Rui</i>	Leaf, Stem latex
45	<i>Canna indica</i> L.	Cannaceae	<i>Kardali</i>	Leaf
46	<i>Capparis deciduas</i> (Forsk.) Edgew.	Capparaceae	<i>Kiral</i>	Leaf
47	<i>Capsicum annuum</i> L.	Solanaceae	<i>Mirapa</i>	Fruit
48	<i>Carica papaya</i> L.	Caricaceae	<i>Papai</i>	Latex
49	<i>Carissa carandus</i> L.	Apocynaceae	<i>Karvand</i>	Leaf
50	<i>Cassia auriculata</i> L.	Caesalpiniaceae	<i>Tarval</i>	Stem, Bark
51	<i>Cassia fistula</i> L.	Caesalpiniaceae	<i>Bahava</i>	Fruit
52	<i>Cassia uniflora</i> L.	Caesalpiniaceae	<i>Tarota</i>	Fruit
53	<i>Cayratia auriculata</i> (Roxb.)	Vitaceae	<i>Kumbhela</i>	Root
54	<i>Ceiba pentandra</i> (L.) Gaertn.	Bombacaceae	<i>Samali</i>	Leaf, Stem, Bark
55	<i>Celastrus paniculata</i> Willd.	Celastraceae	<i>Malkamini</i>	Bark
56	<i>Chloroxylon swietenia</i> DC.	Rutaceae	<i>Bhera</i>	Leaf
57	<i>Cissampelos pareira</i> L.	Menispermaceae	<i>Chiruboddi</i>	Whole plant
58	<i>Cissus quadrangularis</i> L.	Vitaceae	<i>Kandwel`</i>	Stem
59	<i>Citrullus colocynthis</i> (L.) Schrad.	Cucurbitaceae	<i>Indraban</i>	Seed, Fruit
60	<i>Citrus limon</i> (Linn.) Burn.f.	Rutaceae	<i>Idlimbu</i>	Whole plant
61	<i>Cleome gynandra</i> L.	Cleomaceae	<i>Pandhri Tilwan</i>	Leaf, Seed
62	<i>Clerodendron serratum</i> (L.) Moon.	Verbenaceae	<i>Bharangi</i>	Root
63	<i>Clerodendrum phlomoides</i> L. f.	Verbenaceae	<i>Arani</i>	Root
64	<i>Clerodendrum viscosum</i> Vent	Verbenaceae	<i>Bhandira</i>	Leaf
65	<i>Clitoria ternatea</i> L.	Papilionaceae	<i>Gokarn</i>	Seed
66	<i>Cocculus hirsutus</i> L. Diels	Menispermaceae	<i>Washing</i>	Leaf
67	<i>Cochlospermum religiosum</i> L.	Cochlospermaceae	<i>Konda gogu</i>	Leaf, Stem, Bark
68	<i>Cocos nucifera</i>	Arecaceae	<i>Naral</i>	Oil
69	<i>Coixlacryma-jobi</i> L.	Poaceae	<i>Ranmaka</i>	Tuber
70	<i>Convolvulus arvensis</i> L.	Convolvulaceae	<i>Chandvel</i>	Leaf
71	<i>Cordia dichotoma</i> Forst.	Boraginaceae	<i>Bhokar</i>	Fruit
72	<i>Coriandrum sativum</i> L.	Apiaceae	<i>Sambhar</i>	Whole plant
73	<i>Costus speciosus</i> Koenig	Costaceae	<i>Penva</i>	Root
74	<i>Crotalaria juncea</i> L.	Papilionaceae	<i>Sonboru</i>	Seed
75	<i>Cucumis callosus</i> (Rottl.)	Cucurbitaceae	<i>Mothi Kakadi</i>	Root
76	<i>Curculigo orchoides</i> Gaertn.	Hypoxidaceae	<i>Dukkarkandh</i>	Rhizome
77	<i>Curcuma amada</i> Roxb.	Zingerberaceae	<i>Ambihalad</i>	Rhizome
78	<i>Curcuma longa</i> L.	Zingerberaceae	<i>Haldi</i>	Rhizome
79	<i>Curcuma pseudomontana</i> Grah.	Zingerberaceae	<i>Ranhalad</i>	Rhizome
80	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	<i>Amarwel</i>	Whole plant
81	<i>Cymbopogon nardus</i> (L.) Rendle	Poaceae	<i>Gavatichaha</i>	Leaf
82	<i>Cymopsis tetragonoloba</i> L.	Fabaceae	<i>Gawar</i>	Seed
83	<i>Cyperus rotundus</i> L.	Cyperaceae	<i>Nagarmotha</i>	Whole plant
84	<i>Dalbergia sissoo</i> Roxb.	Papilionaceae	<i>Sissam</i>	Leaf
85	<i>Datura metal</i> L.	Solanaceae	<i>Dhotra</i>	Fruit
86	<i>Datura stramonium</i> L.	Solanaceae	<i>Dhotra</i>	Fruit
87	<i>Delonix regia</i> L.	Caesalpiniaceae	<i>Gulmohar</i>	Stem, Bark
88	<i>Dioscorea hispida</i>	Dioscoreaceae	<i>Telikand</i>	Tuber
89	<i>Dolichondrone falcata</i> Seem.	Bignoniaceae	<i>Medshing</i>	Bark, Fruit

90	<i>Ehretia laevis</i> Roxb.	Ehretiaceae	<i>Ajaan</i>	Leaf
91	<i>Embelia ribes</i> Burm. f.	Myrcinacease	<i>Vawding</i>	Root, Bark
92	<i>Eucalyptus globulus</i> L.	Myrtaceae	<i>Neelagiri</i>	Oil
93	<i>Ferula asafoetida</i> L.	Apicaceae	<i>Hing</i>	Gum
94	<i>Ficus amplissima</i>	Moraceae	<i>Pakali</i>	Bark
95	<i>Ficus benghalensis</i> L.	Moraceae	<i>Wad</i>	Root
96	<i>Ficus racemosa</i> L.	Moraceae	<i>Umber</i>	Leaf
97	<i>Ficus religeosus</i> L.	Moraceae	<i>Piple</i>	Bark
98	<i>Rotala illecebroides</i> (Clarke)	Lythraceae	-	Leaf, Stem
99	<i>Gardenia latifolia</i> Ait.	Rubiaceae	<i>Dikemali</i>	Stem, Bark
100	<i>Geodorum densiflorum</i> Schltr.	Orchidaceae	<i>Haryakand</i>	Tuber
101	<i>Gloriosa superba</i> L.	Liliaceae	<i>Kallawi</i>	Rhizome
102	<i>Helecteres isora</i> L.	Sterculiaceae	<i>Muradsheng</i>	Fruit
103	<i>Helianthus annus</i> L.	Asteraceae	<i>Suryaful</i>	Oil
104	<i>Holarrhena pubescens</i> (Buch.) Wall.	Apocynaceae	<i>Safed kuda</i>	Stem, Bark
105	<i>Holoptelea integrifolia</i> (Roxb.)	Ulmaceae	<i>Kilaku</i>	Leaf
106	<i>Hymenodictyon orixense</i> Roxb.	Rubiaceae	<i>Bhorsal</i>	Bark, Leaf, Gum
107	<i>Hyptis suaveolens</i> (L.) Poit.	Lamiaceae	<i>Bhutganza</i>	Leaf
108	<i>Ipomea fistulosa</i> Mart. Ex.	Convolvulaceae	<i>Beshram</i>	Leaf, Stem
109	<i>Ipomoea aquatica</i> Forsk.	Convolvulaceae	<i>Haranvel</i>	Leaf
110	<i>Ipomoea fistulosa</i> Mart.	Convolvulaceae	<i>Beshrum</i>	Leaf
111	<i>Ixora arborea</i> Roxb.	Rubiaceae	<i>Lokhandi</i>	Leaf
112	<i>Ixora brachiata</i> Roxb.	Rubiaceae	<i>Lokhandi</i>	Leaf
113	<i>Jatropha curcas</i> L.	Euphorbiaceae	<i>Chandrajyoti</i>	Leaf, Stem bark
114	<i>Jatropha gossypifolia</i> L.	Euphorbiaceae	<i>Mogali Erand</i>	Latex
115	<i>Lagenaria leucantha</i> (Duch) Rusby	Cucurbitaceae	<i>Kadududhi</i>	Leaf
116	<i>Lagerstroemia microcarpa</i> Wt.	Lythraceae	<i>Naswelikanda</i>	Root
117	<i>Lanea coromandelica</i> Houtt.	Anacardiaceae	<i>Movai</i>	Bark
118	<i>Lawsonia innernis</i> L.	Lythraceae	<i>Mehandi</i>	Leaf
119	<i>Leonotis nepetaefolia</i> (L.) R. Br.	Lamiaceae	<i>Dipmal</i>	Fruit
120	<i>Leptadenia reticulata</i> (Retz.)	Asclepiadaceae	<i>Dudhkadi</i>	Leaf
121	<i>Leucas aspera</i> Willd	Lamiaceae	<i>Domkolosh</i>	Leaf, Stem
122	<i>Limonia acidissima</i> L.	Rutaceae	<i>Kawath</i>	Leaf
123	<i>Lindernia parviflora</i> Haines.	Scrophulariaceae	<i>Ghani</i>	Whole plant
124	<i>Linum usitatisimum</i> L.	Linaceae	<i>Jawas</i>	Seed
125	<i>Litsea glutinosa</i> (Lour.)	Lauraceae	<i>Lenja</i>	Leaf
126	<i>Luffa acutangula</i> (L.) Roxb.	Cucurbitaceae	<i>Dodka</i>	Fruit
127	<i>Luffa echinata</i> Roxb	Cucurbitaceae	<i>Devdangri</i>	Fruit
128	<i>Lycopersicum esculentum</i> L.	Solanaceae	<i>Tamatar</i>	Leaf
129	<i>Madhuca longifolia</i> Koenig.	Sapotaceae	<i>Mohua</i>	Flower, Seed oil
130	<i>Rotala indica</i> (Willd)	Lythraceae	-	Leaf, Stem
131	<i>Mangifera indica</i> L.	Anacardiaceae	<i>Amba</i>	Seed, Stem bark, Fruit
132	<i>Merremia gangetica</i> (L.) Cuford.	Convolvulaceae	<i>Gopanbhaji</i>	Leaf, Stem
133	<i>Milusa tomentosa</i> (Roxb.) Sinclair	Annonaceae	<i>Samoka</i>	Root

134	<i>Mimosa pudica</i> L.	Papilionaceae	<i>Lajalu</i>	Root
135	<i>Mitragyna parviflora</i> Roxb.	Rubiaceae	<i>Karamb</i>	Bark
136	<i>Mollugo nudicaulis</i> Lam.	Molluginaceae	<i>Jharasi</i>	Leaf
137	<i>Momordica dioica</i> Roxb.	Cucurbitaceae	<i>Katwal</i>	Root
138	<i>Morinda citrifolia</i> L.	Rubiaceae	<i>Togara</i>	Fruit
139	<i>Moringa oleifera</i> Lam.	Moriangaceae	<i>Shawaga</i>	Bark
140	<i>Mucuna pruriens</i> L.DC.	Papilionaceae	<i>Khajkuli</i>	Root
141	<i>Murraya koenigii</i> L.	Rutaceae	<i>Kadhipatta</i>	Leaf
142	<i>Musa paradisiacal</i> L.	Musaceae	<i>Keli</i>	Root
143	<i>Nerium oleander</i> L.	Apocynaceae	<i>Kanher</i>	Tuber
144	<i>Nyctanthes arbortristis</i> L.	Oleaceae	<i>Parijat</i>	Leaf
145	<i>Ocimum gmatissimum</i> L.	Lamiaceae	<i>Thulasi</i>	Leaf
146	<i>Opilia amentacea</i> Roxb.	Opiliaceae	-	Stem, Bark
147	<i>Origanum majorana</i> L.	Lamiaceae	<i>Marva</i>	Whole plant
148	<i>Oroxylum indicum</i> (L.) Vent.	Bignoniaceae	<i>Tetu</i>	Bark, Seed
149	<i>Oxalis corniculata</i> L.	Oxalidaceae	<i>Ambosi</i>	Whole plant
150	<i>Pergularia daemia</i> Forssk.	Asclepiadaceae	<i>Utaran</i>	Root
151	<i>Phyllanthus amarus</i> L.	Euphorbiaceae	<i>Bhuiawali</i>	Root,Leaf
152	<i>Phyllanthus niruri</i> L.	Euphorbiaceae	<i>Bhuiawala</i>	Root, Leaf
153	<i>Phyllanthus virgatus</i> Forst.f	Euphorbiaceae	<i>Bhuiawla</i>	Leaf
154	<i>Physalis minima</i> L.	Solanaceae	<i>Phophundi</i>	Leaf
155	<i>Piper nigrum</i> L.	Piperaceae	<i>Mirewel</i>	Fruit
156	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	<i>Chitrak</i>	Root, Leaf
157	<i>Plumeria rubra</i> L.	Apocynaceae	<i>Sonchapha</i>	Fruit
158	<i>Pongamia pinnata</i> (L.) Pierre	Papilionaceae	<i>Karanj</i>	Leaf
159	<i>Psidium guajava</i> L.	Myrtaceae	<i>Peru</i>	Leaf,Stem bark
160	<i>Rauwolfia serpentina</i> (L.) Bth.ex Kurz.	Apocynaceae	<i>Serpgandha</i>	Root
161	<i>Ricinus communis</i> (L.) red variety	Euphorbiaceae	<i>Arand</i>	Seed
162	<i>Santalum album</i> L.	Santalaceae	<i>Chandan</i>	Leaf, Stem
163	<i>Sapindus laurifolius</i> Vahl.	Sapindaceae	<i>Ritha</i>	Root, Bark,Seed
164	<i>Schleichera oleosa</i> (Lour.) Oken	Sapindaceae	<i>Kusumb</i>	Leaf
165	<i>Scilla hyacinthiana</i> (Roth.) Mc Bride.	Liliaceae	<i>Jangli kanda</i>	Tuber and Leaf
166	<i>Securinega leucopyros</i> Muell.	Euphorbiaceae	<i>Pandharpali</i>	Leaf
167	<i>Semicarpus anacardium</i> L.	Anacardiaceae	<i>Bibba</i>	Seed
168	<i>Sida acuta</i> L.	Malvaceae	<i>Chikna</i>	Leaf
169	<i>Solanum xanthocarpum</i> L.	Solanaceae	<i>Wangedorli</i>	Root, Seed
170	<i>Solanum surattense</i> Burm. f.	Solanaceae	<i>Ringni</i>	Fruit
171	<i>Soymida febrifuga</i> A. Juss.	Meliaceae	<i>Rohan</i>	Stem, Bark
172	<i>Sphaeranthus indicus</i> L.	Asteraceae	<i>Gorakhmundi</i>	Leaf,Root,Fruit
173	<i>Strychnos nuxvomica</i> L.	Loganiaceae	<i>Kuchla</i>	Leaf
174	<i>Strychnos potatorum</i> L.	Loganiaceae	<i>Niruli</i>	Seed,Fruit,Leaf
175	<i>Syzygium cumini</i> (L.) Skeels.	Myrtaceae	<i>Jambhul</i>	Bark
176	<i>Syzygium jambos</i> Alston	Myrtaceae	<i>Janglijamun</i>	Leaf, Bark
177	<i>Tacca leontopetaloides</i> (L.) Kuntze	Taccaceae	<i>Ransuran</i>	Tuber

178	<i>Tamarindus indica</i> L.	Caesalpiaceae	<i>Chinch</i>	Stem, Bark
179	<i>Tectona grandis</i> L.	Verbenaceae	<i>Sag</i>	Root
180	<i>Teprosia purpuria</i> L. Pers.	Papilionaceae	<i>Sarpunkha</i>	Leaf
181	<i>Terminalia arjuna</i> (Roxb.) Wt.&Arn.	Combretaceae	<i>Arjun</i>	Bark
182	<i>Terminalia crenulata</i> Roth	Combretaceae	<i>Sadada</i>	Bark
183	<i>Tinospora cordifolia</i> Willd.	Menispermaceae	<i>Gulvel</i>	Stem, Root
184	<i>Tribulus terrestris</i> L.	Zygophyllaceae	<i>Gokharu</i>	Leaf
185	<i>Tridax procumbens</i> L.	Asteraceae	<i>Kabarmodi</i>	Whole plant
186	<i>Triumfetta pentandra</i> A.	Tiliaceae	<i>Menduli</i>	Root
187	<i>Vernonia cineraria</i>	Asteraceae	<i>Shahadevi</i>	Leaf
188	<i>Vigna mungo</i> L.	Papilionaceae	<i>Mung</i>	Seed
189	<i>Vitex negundo</i> L.	Verbenaceae	<i>Nirgudi</i>	Root, leaf
190	<i>Vitex trifolia</i>	Verbenaceae	<i>Nirgundi</i>	Leaf, Stem
191	<i>Waltheria indica</i> L.	Sterculiaceae	-	Leaf
192	<i>Wattakaka volubilis</i> (L. f.) Stapf.	Asclepiaceae	<i>Malkani</i>	Leaf
193	<i>Withania somnifera</i> Dunal	Solanaceae	<i>Askand</i>	Root
194	<i>Woodfordia fruticosa</i> (L.) Kurz	Lythraceae	<i>Dhayati</i>	Flower
195	<i>Xanthium indicum</i> Koenig	Asteraceae	<i>Gokru</i>	Leaf
196	<i>Ziziphus xylopyra</i> L.	Rhamnaceae	<i>Gotti</i>	Root
197	<i>Z. jujuba</i> L.	Rhamnaceae	<i>Bor</i>	Fruit
198	<i>Z. oenoplia</i> (L.) Mill.	Rhamnaceae	<i>Aroni</i>	Root

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