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Aphrodisiac: An Overview in Present Context of Ailment

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Abstract

Our world harbours a rich source of medicinal plants which are used in the ailment of various health problems. The present review highlights the epidemiology, reasons and types of infertility. Well covered the importance and use of synthetic as well as natural, herbal, plant derived aphrodisiac substances proclaimed in different source literature. While evaluating any drug for aphrodisiac potential several animal models are being used thus the parameters used in assessing aphrodisiac activity also being elaborated. A list of medicinal plants having aphrodisiac potential from literature is tabulated here for easy access for further study.

Key word: Aphrodisiac, plant, overview, herbal.

Introduction

Infertility is one of the major health problems couple's lives; approximately 30% of couple's infertilities are due to male factors. WHO estimates that there are 60 -80 million infertile couples worldwide.[1] Loss of interest in sex or problems with sexual arousal makes most individuals experience and express discomfort in their sexual behavior. Such concerns or changes may arise from an illness or disability, medication or surgical procedure, changes accompanying the aging process[2], relationship difficulties[3] performance anxiety [4], or a combination of any of these factors. There are three basic types of sexual dysfunction; disorders of desire - takes the form of inadequate sexual desire (libido) in both sexes [5] disorders of excitement (or arousal) in men, impotence [6] disorders of orgasm, includes difficulty achieving orgasm in both men and women but more common among men. [7] Libido refers to an individual's desire for sexual activity. This can also be called sex drive. Factors that affect libido include psychological factors, biological factors and social factors. Personality and the level of stress an individual is exposed to be internal psychological factors that can affect sexual desire [8]. *Alchornea cordifolia* belongs to the family of Euphorbiaceae.

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The common names are Christmas bush and Dovewood. The leaves and stems are used traditionally as a therapeutic agent in many countries in Africa as remedies for various conditions which includes enhancing libido and male infertility [9]. It is used as an antidote for poison, as a sedative and antispasmodic. Aphrodisiac is the word derived from Aphrodite, the Greek goddess of sexual, love and beauty. An aphrodisiac is defined as an agent (food or drug) that arouses sexual desire. Aphrodisiac potential are mentioned there as Vajikaranas, the word vaji meaning horse and karanta meaning making i.e. Measure to excite lust by charms. Many natural substances have historically been known as aphrodisiacs in Africa and Europe, such as *Yohimbine* and the *Mandrake* plant, as well as ground Rhinoceros horn in the Chinese culture and "Spanish fly" which is actually toxic[10,11,12]. The use of plants is customary in Indian systems of medicine like Ayurveda, Unani, Sidha and many other indigenous and folk practices. *Charaka* advocates to use vrishya drugs regularly for possessing pleasure, wealth and fame and it helps be getting male progeny which is the resort of those qualities. He further quotes that potency (libido or shakti) is based on exhilaration which again depends on the strength of body and mind [13].*Vajikaranatantra* is one of the eight branches of Ayurveda which is meant for providing affluence, purity, increase and secretion in case of little, defective, deficient, and dried semen respectively and also for producing exhilaration. According to chakrapani drugs possessing vrishya karma act both as aphrodisiac and spermatopoietic

medicine. *Bhavprakashasamhita* one of the*Laghutrayi* mentioned *vrishya* and *sukrala* (increases semen) drugs in the nighantu portion and *vajikarana* chapter of treatise [14]. Aphrodisiacs are the substances which stimulate sexual desire, for e.g., *basil, cinnamon, pine nuts, garlic, chilli-pepper, cardamom* etc. Sexual desire is controlled by central nervous system which integrate tactile, olfactory, auditory and mental stimuli; Sexual performance which is not always dependant on sexual desire is also called sexual performance or sexual capacity[15].

Table 1: Medicinal plants having aphrodisiac potential

S. No.	Name of Plant	Common name	Family	Part used	Reference
1.	*Abelmoschus esculantus*(L.)	Bhindi	Malvaceae	Root	[16]
2.	*Abelmoschus moschatus*	Musk mallow	Malvaceae	Seed	[17-18]
3.	*Abrus preacatorium* Linn.	Ganja	Fabaceae	Seed	[19]
4.	*Abrus precatorius* L.	Crab's Eye	Paplionaceae	Seed	[20-21]
5.	*Abutilon indicum* (Linn.)	Thuthi	Malvaceae	Seed, root, bark, leaf	[17]
6.	*Acacia catechu Willd.*	Catechu	Mimosaceae	Heartwood	[17,22]
7.	*Acacia nilotica L. Willd.*	Gum Arabic tree	Fabaceae	Bark	[23]
8.	*Achyranthes aspera* Linn.	Apamarg, Latjeera	Amaranthaceae	Root	[16]
9.	*Aconitum heterophyllum Wall.*	Attesh	Ranunculaceae	Root	[16]
10.	*Acorus calamus* Linn.	Sweet flag	Araceae	Rhizome	[24-25]
11.	*Actiniopteris radiata Sw.*	Morshikha	Actinopteridaceae	Whole plant	[26]
12.	*Adenanthera pavonina*	Baragunchi	Mimosaceae	Bark, seeds, Leaves	[27]
13.	*Alchornia floribunda Mull.*	Niando	Euphorbiaceae	Root	[28]
14.	*Allium sativum* L.	Garlic	Liliaceae	Bulb	[17,19, 30,]
15.	*Allium tuberosum*	Chiense chive	Zingiberaceae	Seed	[29-30]
16.	*Aloe excels Berger*	Zimbabwe Aloe	Asphodelaceae	Leaf	[31]
17.	*Aloe vera*	Ghritakumari	Liliaceae	Leaves	[55]
18.	*Allium cepa*	pyaz	Liliaceae	Bulb	[62]
19.	*Alpinia galanga Willd.*	Java galangal	Zingiberaceae	Rhizome	[32]
20.	*Amaranthus spinosus* L.	Chaulai	Amaranthaceae	Leaves, Whole	[16]
21.	*Anacyclus pyrethrum*	Akarakarabha	Compositae	Root	[33]
22.	*Arachis hypogaea* Linn.	Peanut	Fabaceae	Seeds	[27]
23.	*Argyreia nervosa*	Adhoguda	Convolvulaceae	Root , leaves	[36]
24.	*Aristrolochia indica L.*	Ishwaramul	aristolochiaceae	Whole plant	[62]
25.	*Artocarpus heterophyllus* Linn.	Jack tree	Moraceae	Fruit, Seed, Leaves, root	[27]
26.	*Asparagus racemosus Willd.*	Asparagus	Liliaceae	Root	[34-35]
27.	*Asphaltum bitumen*	Shilajit	-	Pitch	[51]
28.	*Azadirachita indica*	Neem	Meliaceae	Root	[16]
29.	*Bacopa monnieri* L.	Brahmi	Scrophulariaceae	Whole plant	[16]
30.	*Bauhinia tomentosa* Linn.	Manja Mandaram	Caesalpiniaceae	Seed	[17]
31.	*Bauhinia vahlii*	Camel's Foot climber	Caesalpiniaceae	Seed	[17]
32.	*Bauhinia variegate*Linn.	Bauhinia	Caesalpiniaceae	Bark	[17]
33.	*Benincasa hispida Cogn.*	Ash gourd	Cucurbitaceae	Fruit	[17]
34.	*Blepharis edulis* Linn.	Utangan/ Shikhi	Acanthaceae	Seeds	[37]
35.	*Blepharis sindica*	Unt-kantalo/Bhangari	*Acanthaceae*	Seeds	[104]
36.	*Boerhavia diffusa* L.	Punarnava	Nyctaginaceae	Root	[16]
37.	*Boesenbergia rotunda* L.	Temu kunci	Zingeberaceae	Rhizomes	[29,38]
38.	*Bombax ceiba* Linn.	Silk-Cotton Tree	Bombacaceae	Bark	[17]
39.	Bryonia laciniosa linn.	Shivlingi	curcurbitaceae	Seed	[62]
40.	*Bussea occidentalis*	Kpayeli	Caesalpiniaceae	Bark, seed	[39]
41.	*Butea frondosa Roxb.*	Flame-of-the-forest	Papilionaceae	Whole plant	[17, 29]

42.	*Butea superb Roxb*	Red kwao kruva	Fabaceae	palm pollen	[57]
43.	*Butea monosperma Roxb.*	Palash	Paplionaceae	Roots	[62]
44.	*Cajanus cajan* (L.) *Millsp.*	Arhar	Fabaceae	Root	[16]
45.	*Cannabis indica* L.	Indian hemp	Cannabinaceae	Leaf	[40]
46.	*Cannabis sativa*	Bhang	Cannabinaceae	Leaf	[16]
47.	*Capparis erythrocarpus Isert.*	Pitipiti	Capparidaceae	Root	[41]
48.	*Capsicum annuum* L.	Capsicum	Solanaceae	Seed	[42]
49.	*Carica papaya* L.	Papita	Caricaceae	Fruit	[78]
50.	*Carpolobia alba G. Don*	Osunsun, Guinea-Bissau	Polygalaceae	Stem bark, Twig	[56].
51.	*Cassia occidentalis* Linn.	Kasondhi	Fabaceae	Leaf	[43]
52.	*Cassia sieberiana DC*	African laburnum	Caesalpiniaceae	Leaf	[39]
53.	Cassia tora Linn.	Chirotha	caesalpiniaceae	Leaf	[62]
54.	*Chenopodium album*	lamb's quarters, melde, goosefoot and fat-hen	Amaranthaceae	lamb's quarters, melde, goosefoot	[50]
55.	*Chenopodium album* L.	White goosefoot	Chenopodiaceae	Seed	[44-46]
56.	*Chione venosa (Sw,) Urb.*	Fatpork	Rubiaceae	Bark and roots	[58]
57.	*Chlorophytum borivilium*	Safed Musli, white Musli	Liliaceae	Roots	[98]
58.	*Chlorophytum tuberosum Baker.*	Safed musli	Liliaceae	Whole plant	[47]
59.	*Cissus quadrangularis*	Veldt Grape or Devil's Backbone	Vitaceae	Edible stemmed Vine	[99]
60.	*Cissus quadrangularis* Linn.	Edible stemmed Vine	Vitaceae	Root	[17]
61.	*Citrullus colocythis*	colocynth, bitter apple, bitter	Cucurbilaceae	Fruit & seed	[100]
62.	*Citrullus lanatus*	*Watermelon*	Cucurbitaceae	Seed	[101]
63.	*Clerodendrum phlomoidis*	Agnimantha, Jaya, Sriparni,	Verbenaceae	Root	[102]
64.	*Cocculs cardifolia* Linn.	Guduchi	Menispermaceae	Stem, leaf,	[48]
65.	*Cocos nucifera* Linn.	Coconut	Arecaceae	Endosperm	[19,49]
66.	*Cola acuminate Schott.*	Cola	Malvaceae	Seed	[50]
67.	*Cola caricaefolia G.Don*	Bumoguan Leaf	Sterculiaceae	Leaf	[39]
68.	*Cola gabonensis Schott & Endl.*	Kola nut	Sterculiaceae	Fruit	[58]
69.	*Cola nitida Schott & Endl.*	Kola nut	Sterculiaceae	Seed	[28]
70.	*Cola pachycarpa Schott & Endl.*	Kola nut	Sterculiaceae	Seed	[28]
71.	*Cola rostrata Schott & Endl.*	Kola nut	Sterculiaceae	Seed	[28]
72.	*Commiphora wightii*	Guggal, Guggul or M ukul myrrh tree	Burseraceae	Stem	[103]
73.	*Commiphora caudata Wt. & Arn.*	Emporium of medicinal plants	Burseraceae	Root, leaf	[79]
74.	*Commiphora mukul Hook. Ex. Stocks*	Indian bdellium tree	Burseraceae	Root, leaf	[17]
75.	*Convolvulus microphyllus*	Shankhpushpi	Convolvulaceae	Leaves	[104]
76.	*Corchorus depressus*	Cham Ghans	Tiliaceae	Whole plant	[105]
77.	*Coriandrum sativum* Linn.	Coriander	Apiaceae	Leaf	[44]
78.	*Corynanthe pachycerus K Schum.*	Ivory coast	Rubiaceae	Stem, Bark	[41]
79.	*Crocus sativus* Linn.	Saffaron	Iridaceae	Stigma	[29]
80.	*Crotalaria burhia*	Saniya	Crotalaria burhia	Whole plant	[105]
81.	*Cucumis callosus*	Melon, Muskmelon, Cantaloupe, Honeydew, Sugar	Cucurbitaceae	Fruit	[106]

		Melon			
82.	*Cucurbita pepo* L.	Pumpkin	Cucurbetaceae	Seed	[17]
83.	*Curculigo orchioides Gaertn.*	Musali	Hypoxidaceae/ Amaryllidaceae	Rhizome	[17-60]
84.	*Curcuma amada Roxb.*	Mango ginger	Zingiberaceae	Rhizome	[17-18]
85.	Cururma angustifolia Roxb.	Tikhur	zingiberaceae	Rhizomes	[62]
86.	*Cymbopogon citrates (DC.) Stapf*	Lemongrass	Poaceae	Whole plant	[17]
87.	*Dactylorhiza hatagirea*	Marsh Orchis	Orchidaceae	Root	[24,51]
88.	*Dalbergia sissoo Roxb.*	Shisham	Fabaceae	Wood	[43-44]
89.	*Daucus carota* L.	Carrot	Umbelliferae	Root	[52]
90.	*Desmodium gangeticum* Linn.	Desmodium	Fabaceae (Papilionaceae)	Root	[17]
91.	*Dioscorea bulbifera* Linn.	Wild Yam	Dioscoreaceae	Whole plant	[43]
92.	*Diospyros melanoxylon Roxb.*	East Indian ebony	Ebenaceae	Flower	[17, 43]
93.	*Dolichos lablab* Linn.	Flat bean, sem	Fabaceae	Seeds	[27]
94.	*Drypetes roxburghii(Wall.)*	Putjev	Euphorbiaceae	Leaf juice	[43]
95.	*Durio Zibenthinus Murr.*	Durian Fruit	Bombacaceae	Fresh fruit	[29,53]
96.	*Echinacea purpurea* L.	Indian head, comb Flower	Compositae	Leaves	[54]
97.	*Ekerbegia capensis Sparrm.*	Isongoroit	Meliaceae	Root	[31]
98.	*Emblica officinalis Gaertn.*	Emblic	Euphorbiaceae	Fruit	[55-56]
99.	*Eriodendron Anfractuosum DC.*	White silk cotton Tree	Bombaceae	Whole plant	[48]
100.	*Erthroxylem catuaba*	Catuaba	Erthroxylaceae	Bark	[52]
101.	*Euadenia eminens Hook.f.*	Dinsinkro	Capparidaceae	Root	[41]
102.	*Euphorbia hirta* L	Asthma weed, Cat hair, Egele, Nonan' kurchiya, Odane nenmili	Euphorbiaceae	Whole plant	[56].
103.	*Euphorbia hirta* L.	Dudhi	Euphorbiaceae	Leaves	[39]
104.	*Eurycoma longifolia Jack*	Tongkat Ali	Simarubaceae	Whole plant	[57-58]
105.	*Evolvulus alsinoides* L.	Shankhahuli	Convolvulacae	Whole plant	[27]
106.	*Fadogia agrestis Schweinf. Ex Heim*	Black aphrodisiac	Rubiaceae	Stem	[59-60]
107.	*Ferula hermonis*	Shilsh-el-zallouh	Umbelliferae	Root	[61]
108.	*Ficus arnottiana Miq.*	Paras Pipal	Moraceae	Bark	[62]
109.	*Ficus racemosa* L.	Gular	Moraceae	Fruit	[16]
110.	*Ficus religiosa* Linn.	Peepal tree	Moraceae	Bark	[17]
111.	*Ficus retusa*	Chilkan	Moraceae	Latex	[63]
112.	*Ficus sycomorus (mig)*	Baure	Moraceae	Root	[58]
113.	*Flueggea virosa Roxb. Ex*	White-berry bush	Euphorbiaceae	Whole Plant	[50]
114.	*Garcinia afzelii Engl*	Bitter kola	Guttiferae	Bark	[39]
115.	*Garcinia kola Heckel*	Bitter kola	Guttiferae	Bark	[39]
116.	*Ginko biloba*	Ginkgo	Ginkgoaceae	Leaves, Seeds	[53]
117.	*Glycyrrhiza glabra* Linn.	Liquorice	Papilionaceae	Root	[17]
118.	*Gmelina arborea Roxb.*	Coomb teak	Verbenaceae	Fruit	[17]
119.	*Gossypium arboretum* Linn.	Kapas	Malvaceae	Bark, seeds, Leaves, root	[27]
120.	*Grewia asiatica* L.	Phalsa	Tiliaceae	Fruit	[44]
121.	*Grewia tenax*	White Crossberry, Phalsa Cherry,	Tiliaceae	Fruit	[44]
122.	*Harissonia abyssinica Oliv*	Zigua	Simaroubaceae	Bark	[39]

123.	*Hibiscus rosa-sinesis*	China rose	Malvaceae	Leaf	[17]
124.	*Hibiscus sabdariffa* Linn.	Roselle	Malvaceae	Seed, leaf	[17]
125.	*Holostemma ada-kodien Schult.*	Holostemma	Asclepiadaceae	Root	[17]
126.	*Hygrophila schulli (Ham.)*	Marsh Barbel	Acanthaceae	Root, leaf, seed	[17]
127.	*Inalia catappa* L.	India almond,Umbrella	Combretaceae	Stem bark, Kernel (Seeds)	[56]
128.	*Indigofera linnaei*	Vasuka	Fabaceae	Leaves and seed	[107]
129.	*Ipomoea digitata*	Vidari kandha	Convolvulaceae	Root	[54]
130.	*Ipomoea mauritiana Jacq.*	Giant potato	Convolvulaceae	Root	[17]
131.	Ipomoea batata	Shikharkhand	convoluceae	Root	[62]
132.	*Kaempferia parviflora*	Krachaidum	Zingiberaceae	Rhizomes	[64]
133.	*Khaya Senegale nsis (Hochst)*	African mahogany, dry zone mahogany	Mimosaceae	Root	[84]
134.	*Lagenaria vulgaris Ser.*	Bottle gourd	Cucurbitaceae	Fruit	[17]
135.	*Landolphia dulcis(Sabine) Pichon*	Hama-fufu	Apocynaceae	Root, Bark	[41]
136.	*Lepidium meyenii Walp.*	Maca	Brassicaceae	Root	[65-66]
137.	*Linum usitatissimum* L.	Alsi	Linaceae	Seed	[16]
138.	*Lycium barbarum*	Chinese wolfberry, Chinese boxthorn,	Solanaceae	Fruit	[108]
139.	*Mangifera indica* L.	Mango	Anacardiaceae	Bark	[17]
140.	*Maranta arundinacea* Linn.	Arrowroot	Zingiberaceae	Rhizome	[17]
141.	*Massularia acuminata*	Chewing stick	Rubiaceae	Stem	[67]
142.	*Massularia acuminata*	Bioko and Annobon	Rubiacea	Stem bark, Root	[56].
143.	*Maytenus senegalensis(Lam.) Exell*	Vingar	Celastraceae	Leaves, Stem, Root	[56].
144.	*Mezoneuron benthamianum Baill*	Senegal	Caesalpiniaceae	Twig or Stem	[39]
145.	*Microdesmis keayana J. Leonard*	-	Pandaceae	Stem bark, leaves and	[58, 84]
146.	*Mimosa hamate*	Mundi, Bander-ki-Rakhi, Gulabi babul	Fabaceae	Seeds	[109]
147.	*Mimosa pudica* L.	Thottasiniki	Mimosoideae	Aerial part	[68]
148.	*Mirabilis jalapa* L.	Four o' clock plant	Nyctaginaceae	Root	[56]
149.	*Momordica charantia Descourt*	Bitter Melon	Cucurbitaceae	Leaf	[69]
150.	*Mondia whitei* Linn.	White's ginger	Periplocaceae	Root	[70]
151.	*Montanoa tomentosa Cerv.*	Zoapatle	Asteraceae	Whole plant	[71]
152.	*Morinda lucida*	Brimstonetree	Rubiacaeae	Leaves	[72]
153.	*Moringa oleifera*	Moringa	Moringaceae	Leaves	[110]
154.	*Mucuna pruriens* Linn.	velvet bean or Cowitch	Leguminosae	Seed	[109],
155.	*Mucuna pruriens* Linn. *DC.*	Poonai kali	Fabaceae	Seed	[43]
156.	*Musa paradisiaca* L.	Plantain Ogede, Ayaba	Musaceae	Leaves, Roots, Fruits	[56]
157.	*Myristica fragrans Houtt.*	Nutmeg	Myristicaceae	Seed	[17, 29]
158.	*Nerium indicum Mill.*	Kaner/Kanail	Apocynaceae	Roots	[43]
159.	*Nyctanthes arbartristis*	Night-flowering Jasmine	Oleaceae	Flower and seed	[112]
160.	*Ocimum gratissimum*	Vana Tulsi	Labiatae	Leaves	[17]
161.	*Orchis latifolia* Linn.	Munjaataka	Orchidaceae	Roots	[73]
162.	*Oxyantllus unilocularis Hiern*	Ghana akan	Rubiaceae	Fruit, leaf	[39]
163.	*Pagenum harmala*	Esfand, wild rue, Syrian rue	Nitrariaceae	Seed	[113]
164.	*Palisota hirusta K. Schum.*	Ghana	Commelinaceae	Leaf	[74]
165.	*Panax ginseng*	Ginseng	Araliaceae	Root	[75]
166.	*Papaver somniferum* L.	Poppy plant	Papaveraceae	Flower	[17]

167.	*Passiflora incarnate* L.	Wild Passion Flower	Passifloraceae	Leaf	[76]
168.	*Parkia biglobos a*	Dorawa	Fabaceae	Bark	[84]
169.	*Pausinystalia yohimbe(K.Schum.)*	Pierre Yohimbin	Rubiaceae	Bark	[77]
170.	*Pedalium murex*	Burra Gokhru	Pedaliaceae	Whole plant	[79]
171.	*Pfaffia paniculata*	Suma	Papilionaceae	Root	[78]
172.	*Phyllanthus amarus*	Bahupatra	Euphorbiacea	Leaves	[114],
173.	Phylanthus emblica l.	Aonla	Euphorbiaceae	Fruit	[62]
174.	*Phoenix dactylifera*	Date palm	Arecaceae	Pollen	[61]
175.	*Piper betle* Linn.	Vettrilai	Piperaceae	Leaf	[68]
176.	*Piper guineense Schumach.*	West African Pepper	Piperaceae	Root	[41]
177.	*Piper officinarum DC*	Chavica officinarum	Piperaceae	Fruit	[17]
178.	*Polyalthia suaveolens Engl. & Diels*	Polyalthia	Annonaceae	Fruit, root, leaf	[80]
179.	*Polygonatum multiflorum (L.) All*	Solomon's Seal	Liliaceae	Root	[24]
180.	*Prunus amygdalus batsch*	Badama	Rosaceae	Kernel	[27]
181.	*Psoralea corylifolia* Linn.	Bavaci	Fabaceae	Fruit	[27]
182.	*Punica granatum* L.	Anar	Punicaceae	Fruit	[16]
183.	*Rauwolfia vomitoria Afzel*	Afzel. Poison devil's pepper	Apocynaceae	Root	[81 -82]
184.	*Rhododendron Anthopogon*	Ballu	Ericaceae	Leaf, flower	[24]
185.	*Rhododendron lepidotum Wall. ex D. Don*	Snow Rose	Ericaceae	Leaf, flower	[24]
186.	*Ricinus communis* L.	Castor	Euphorbiaceae	Seed	[17]
187.	*Rosa damascene Mill*	Rose	Rosaceae	Petal	[83]
188.	*Ruta chalepensis* L.	Garden rue	Rutaceae	Leaves	[58]
189.	*Saccharum spontaneum* Linn.	Kasa	Poaceae	Root stock	[19,63]
190.	*Santalum album* Linn.	Sandal wood	Santalaceae	Heart wood	[83]
191.	*Satureja khuzestanica Jamzad*	Haritaki	Lamiaceae	Aerial parts	[58]
192.	*Scindapsus officinalis Schtt.*	Gajapipali	Arecaceae	Fruit	[19, 63]
193.	*Securidaca longepedunculata Slash*	Violet tree	Polygalaceae	Root bark	[29]
194.	*Sesamum indicum* Linn.	Tilli / Til	Pedaliaceae	Seds	[43]
195.	*Shorea robusta geartn*	Sal, Kabba	Dipterocarpaceae	Bark, leaves, Fruit	[27]
196.	*Sida acuta Burn.F.*	Bala	Malvaceae	Whole plant	[16]
197.	*Sida cordifolia* Linn.	Countary-mallow	Malvaceae	Root, seed	[17]
198.	*Sida rhombifolia*	Bagauli	Malvaceae	Root	[16]
199.	*Solanum indicum* Linn.	Indian night Shade	Solanaceae	Root	[17]
200.	*Sphaeranthus africanus* Linn.	Botobotonisan	Asteraceae	Whole plant	[17]
201.	*Sphaeranthus indicus* Linn.	Mundi	Asteraceae	Seeds	[16]
202.	*Stereospermumsuaveolens DC.*	Atkapali	Bignoniaceae	Root, bark, Flower	[17,61]
203.	*Strychnos nux-vomica* Linn.	Strychnine tree	Loganiaceae	Seed	[84]
204.	*Syzygium aromaticum (L.) Merrill & Perry*	Clove	Myrtaceae	Dried flower Bud	[85-86]
205.	*Tabernanthe iboga (L.) Nutt.*	Iboga	Apocynaceae	Root, bark, Stem	[28, 87]
206.	*Tabernanthe manii Baill.*	Tabernanthe	Apocynaceae	Root	[28,87]
207.	*Tamarindus indica L.*	Tamarind	Fabaceae	Bark	[88]
208.	*Tamarix aphylla (L.) Karst*	Athel tamarisk	Tamariaceae	Bark	[44]
209.	*Taxus baccata Linn.*	Birmi	Taxaceae	Leaf	[17,19]
210.	*Terminalia arjuna Roxb.*	Arjuna	Combretaceae	Bark	[17]
211.	*Terminalia catappa L.*	India almond,	Combretaceae	Stem bark, Kernel	[56]

		Umbrella tree		(Seeds)	
212.	*Tinospora cordifolia(Willd) Miers Hk.*	Tinospora	Menispermaceae	Whole plant	[17-18]
213.	*Tribulus terrestris L.*	Punctureving	Zygophyllaceae	Fruit, seed	[89-90]
214.	*Trichopus zeylanicus*	Senna	Trichopodaceae	Leaves	[54]
215.	*Trichosanthes dioica L Roxb. Wild*	Methi	Fabaceae	Seed	[17]
216.	*Turnera aphrodisiaca*	Damiana	Trneraceae	Areal part	[55]
217.	*Turrea heterophylla Sm..*	Ahunanyakwa	Meliaceae	Root, bark, Seed	[41]
218.	*Tynanthus panurensis(Bur.)*	Clavo huasca	Bignoniaceae	Bark, wood	[93-94]
219.	*Vitex negundo*	Five-leaved chaste Tree	Verbenaceae	Fruit	[49]
220.	*Valeriana jatamansi Wall.*	Jatamansi	*Valerianaceae*	Root	[97]
221.	*Vanda tessellata (Roxb.) Hook. ex Don.*	Rasna	Orchidaceae	Flower, Root	[95-96]
222.	*Waltheria Indica*	Hankufa	Sterculiaceae	The whole fruit	[84]
223.	*Withania somnifera Linn.*	Ashwagandha	Solanaceae	Leaf, Root	[17,43,44]
224.	*Wrightia tinctoria (Roxb.) R.Br.*	Ivory tree	Apocynaceae	Seed, Leaf, bark	[17]
225.	*Ziziphusabyssin ica*	Magarya	Rhamnaceae	Leaves	[84]
226.	*Zingiber officinale Roscoe*	Gingembre	Zingeberaceae	Rhizome	[50]

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