

## Plants Used for Medical Purposes in anlıurfa (Turkiye)

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**Abstract:** In this ethnobotanical study, forty-one medicinal plants from anlıurfa (Turkey) have been reported. Among them 27 species were wild and 14 species were cultivated plants. The Latin and Turkish names of the drugs, the plants, chemical contents and therapeutic use are listed. The description of drugs are given with the belonging plants and families. Some hesitant samples were investigated, comparing with the references.

**Key words :** Ethnobotany, medicinal plants, folk medicine, herbal medicine, anlıurfa, Turkiye.

### anlıurfa'da Tıbbi Amaçlı Kullanılan Bitkiler

**Özet:** Bu etnobotaniksel çalı mada, 41 tıbbi bitki anlıurfa'da tespit edilmi tir. Bu bitkiler arasında 27 bitki türü yabani ve 14 türü kültürlü yapılan bitkilerdir. Drogların ve elde edildikleri bitkilerin latince ve türkçe isimleri, morfolojik özellikleri, kimyasal içerikleri ve tedavide kullanılı ları verilmi tir. üpheli görülen örnekler, kaynaklarla kar ıla tırılarak çalı ılmı tir.

**Anahtar Kelimeler:** Etnobotanik, tıbbi bitkiler, halk ilaçları, Bitkisel ilaçlar, anlıurfa, Türkiye

### INTRODUCTION

anlıurfa is situated in the south-east of Turkey, 808 km away from Ankara. It has a surface area of 18.584 km sq. and a population of 1.303.589 The

altitude of the area changes between 350-1200 m. The climate is cold and rainy in winter, hot and dry in summer. ( Fig. 1).

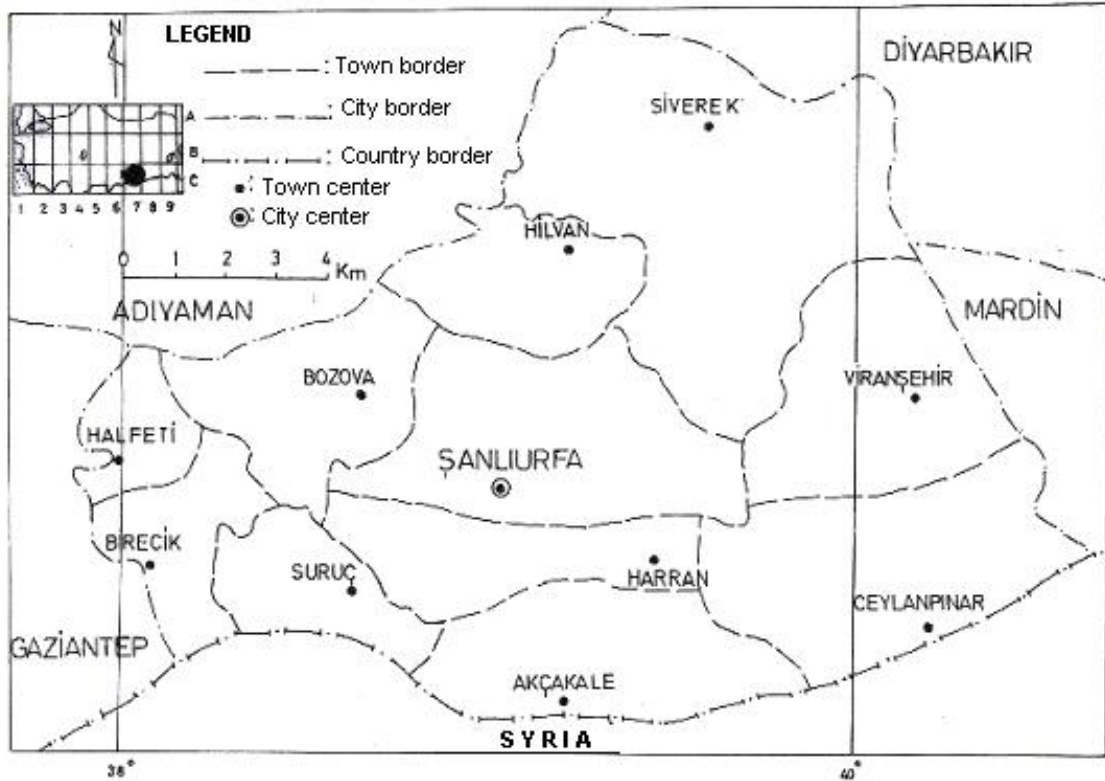


Fig. 1. Location of study area (Province anlıurfa).

Anatolian people used herbal medicine for years in the treatment of some daily disorders. In the course of time, folk medicine has lost interest, related to the migration of people from rural places to big cities. Because of urbanization, industrialization, and the progress of medicine, the knowledge about the folk medicine has vanished (Akan et al. 2005).

In Türkiye; the interest on herbal medicine in has increased parallel to the other developed countries in the whole wide world. With the help of publications and promotions herbal medicine is introduced to the people living in the big cities (Cansaran and Kaya, 2006). While the pharmacists were unconcerned with the herbal medicines, herbalists arised to answer the needs of people. The herbalists, having no required knowledge as far as human health is concerned, deal in the trade of herbal medicine (Akan et al. 2008).

Besides, some books named "healing herb" written by the people having no competence on the subject is sold in the seller of herbs and folk remedies. These publications having erroneous knowledge are the only source for the people interested in medicine. This is the first study on the medicinal plants of anhurfa Province (Balos et al. 2007).

## MATERIALS and METHODS

The information including the various data were obtained from local healer, herbalist, shepherds, experienced adults and patients by personal interviews carried out between March 2009 and October 2011 while collecting plant specimens. In addition, some harmful effects of folk medicine, if declared, were also recorded.

These species are listed in (Table 1-2) indicating their vernacular names, belonging plants and families, their contents and therapeutic usage. In Table 1, the descriptions were made by us with the help of the references (Davis 1988; Baytop 1984). The actual forms of the samples are described, while they were fractured, crumbled and lost their integrity in nylon packages or in jars, even some of them were powdered such as henna.

Abbreviations of plants is stated as table 1 and table-2; (Abbreviations: F. : Folium, Fl. : Flores, Flos : H. : Herba, Fr. : Fructus, \* : Cultivated plant, S. : Semen, Rh. : Rhizoma, C. : Cortex, R. : Radix, [ ] : Record place, AT: Specimen number, Lvs: Leaves, Fl.: Flower, Fr. : Fruit, T. : Tuber)

In Table-2, the contents and the therapeutical usage of the drogs are designed according to the references (Duke, 1987; Sezik et al. 1991; Bingöl 1995; Tonbul and Altan, 1991; Tanker 1991; Tanker 1997; Tuzlacı and Tolon 2000; Fischer and Karting, 1978). The plant specimens were collected by M. Aslan and are kept in the Herbarium of Harran University (HRUB). The recorded species were collected and taxonomically identified according to Davis (Davis 1988).

During the field works, all the settlements (including 27 villages and 9 center) were visited. They are listed below, with a reference number for the recorded place of the local information (d: date, h: altitude, hb: habitat, collection of plants number and Herbarium number, for example Aslan: 1225).

**1. anhurfa** (city of center) d: 12.08.2009, h: 550 m., hb: road side, Aslan: 1201 ; **2. Karaköprü** (center of vilage), d: 05.06.2009, h: 500 m., hb: stream side, Aslan 1224, **3. Akziyaret** (center of vilage), 12.08.2009, h: 550 m., hb: dry stream bank, Aslan: 1229 ; **4. Gölpınar** (center of vilage), 12.08.2009, h: 550 m., hb: road side, Aslan: 1225 **5. Kabahaydar** (center of vilage), 12.08.2009, h: 550 m., hb: dry stream bank, Aslan: 1226, **6. Da ete i** (center of vilage), 12.08.2009, h: 550 m., hb: road side, Aslan: 1225; **7. Kızlar**, 12.08.2011, h: 550 m., hb: road side, Aslan: 1230 **8. Mecrihan** (center of vilage), 12.08.2009, h: 660 m., hb: road side, Aslan: 1231 ; **9. Kırkpınar** (center of vilage), 12.08.2009, h: 550 m., hb: road side, Aslan: 1234 ; **10. Akçakale** (district of center); 12.08.2009, h: 550 m., hb: road side, Aslan: 1236 ; **11. Birecik** (district of center); 12.08.2010, h: 550 m., hb: road side, Aslan: 1236 ; **12. Mezra** (Birecik of vilage); 12.08.2010, h: 550 m., hb: road side, Aslan: 1237 ; **13. Çiftlik Mezra** (Birecik of vilage); 12.08.2009, h: 550 m., hb: dry stream bank, Aslan: 1238, **14. Akarçay** (Birecik of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1239 ; **15. Doruca Mezra** (Birecik of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1240 ; **16. Böğürtlen Mezra** (Birecik of vilage); 12.08.2011, h: 550 m., hb: road side, Aslan: 1242 ; **17. Bozova** (district of center); 12.08.2009, h: 550 m., hb: dry stream bank, Aslan: 1244 ; **18. Irmakboyu** (Bozova of vilage); 12.08.2009, h: 550 m., hb: stream side, Aslan: 1246 ; **19. Özgören** (Bozova of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1248 ; **20. Halfeti** (district of center); 12.08.2009, h: 550 m., hb: stream side, Aslan: 1249 ; **21. Sava anlar** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1250 ; **22. Çekem** (Halfeti of vilage); 12.08.2010, h: 550 m., hb: road side, Aslan: 1251 ; **23. Ömerli** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1252 ; **24. Gözeli** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1254 ; **25. Kavaklıca** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1256 ; **26. Karaotlak** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1258 ; **27. Hilvan** (district of center); 12.08.1999, h: 550 m., hb: road side, Aslan: 1260 ; **28. Ovacık** (Halfeti of vilage); 12.08.1999, h: 550 m., hb: road side, Aslan: 1261 ; **29. Gölcük** (Halfeti of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1263 ; **30. Suruç** (district of center); 12.08.2009, h: 550 m., hb: road side, Aslan: 1265 ; **31. Onbırnisan** (Suruç of vilage); 12.08.2009, h: 550 m., hb: road side, Aslan: 1266 ; **32. Mür itpınar**, 12.08.2009, h: 550

m., hb: road side, Aslan: 1267 12.08.1999, h: 550 m., hb: road side, Aslan ; **33.Boztepe** (Suruç of village); 12.08.1999, h: 550 m., hb: road side, Aslan: 1268 ; **34.Boztepe** (Suruç of village); 12.08.2009, h: 550 m., hb: road side, Aslan: 1269 ; **35. Mür itpınar** (Suruç of village); 12.08.2009, h: 550 m., hb: road side, Aslan: 1271; **36.Mür itpınar** (Suruç of village); 12.08.2011, h: 550 m., hb: stream side, Aslan: 1273 **37. Boztepe** (Suruç of village); 12.08.2009, h: 550 m., hb: road side, Aslan: 1276 ; **38. Mür itpınar** (Suruç of village); 12.08.2009, h: 550 m., hb: road side, Aslan: 1272 ; **39.Viran ehır** (district of center); d: 12.08.2009, h: 550 m., hb: road side, Aslan:1278 ; **40.Harran** (district of center); 12.08.2010, h: 550 m., hb: stream side, Aslan: 1280; **41.Haraplar** (Suruç of village); 12.08.2009, h: 550 m., hb: stream side, Aslan: 1282.

### RESULTS and DISCUSSION

During the study, 90 specimens were collected in the area. According to the results of the identifications, 41 species are being used as folk medicine in anlıurfa. Among them 27 species, are wild and 14 species are cultivated plants

The samples were compared with the drugs registered in British Herbal Pharmacopoeia British Pharmacopoeia and some other references (Duke, 1987; Ye ilada et al. 1993; Ye ilada et al. 1995; Tanker 1991; Tanker et al. 1991). Microscopic and macroscopic analyses were carried on with the suspicious samples, comparing with some references (Tanker and Tanker 1987; Koyuncu 1991; Bingöl 1995).

The plants and the drugs are kept in dirty jars with organic and inorganic material without having hygienic conditions. The stickers on the containers have no information about the plants from which the drug is obtained, its scientific and Turkish names are deceptive. Local names or vernacular names which are not scientific, causes confusion in some cases. For example, with the name of 'camomile', the species of *Matricaria* L. (*Asteraceae*) is sold as weel as *Anthemis* L. (*Asteraceae*). In Turkey there are 50 species of *Anthemis* L. of which some of them have no chamazulen and the amount of flavon is variable

*Jambosa caryophyllus* is not native in our country, some species such as *Citrus auranthum* , cultivated in Turkey is sold with name of Caryophlli (clove is not *Dianthus petraeus* ) smilarly the officinal plant for Eucalyptus liaf is *Eucalyptus globules* rarely grown in our country. *Eucalyptus camadulensis* is sold instead, Which is widely grown in Turkey (Table 1.).

Marshmallow flowers are dried flowers of *Althaea officinalis* (Malvaceae) But the flowers *Althaea cannabiana* , *Alcea pallida*, *Alcea setosa* or *Hibiscus syriacus* are sold in the mercery. In fact Alcea leaf (marshmallow) and Alcea root (marshmallow root) are registered in Turkish Herbal Pharmacopoeia for their demulcent, expectorant, di-uretic, anthilitic and emollient actions and contain 10 % mucilace , while only the flowers of above plants are sold fort he same purposes (Table 2.).

Herbalist, having no medical or pharmacy education, have no idea about the contents, the pharmacological activity and the toxicity of the drug he sells. For example; Amygdali amarum seed, sold in the mercery carry alkaloids, causing toxicity resembling hepatit and must be used after boiling the seed and removing the testa. Herbalists, have to warn people buying these seeds. It is same with almond carring amigdalin. The plants used in these kind of preparations will be reported recently considering the active principles and the pharmacological activites of the samoles.

Some economical material sold in the mercery instead of qualified material, such as Daisy and Chamomile. White daisy is mixed with the red one carrying low percentage of vol.oil, mucilage, resin flavonoids Chamomile. It is sold instead white daisy which is much more expensive than other.

In some merceries some combination prepared from different part of several plants are sold as enfeblement tea. The plants used in these kind of preparatins will be reported recently considering the active principles and pharmacological activities of the samples.

As a result of this study it is obvious that people living in big cities are interested in herbal medicine, and willing to make use of these drugs in some disorders, but for the time being, the mercerizes are not efficient, as far as human healt is concerned.

Table 1. The plants, which are belong to families and actual descriptions of the drug samples such as (Family), (Local name).

Species, (Family)	Drug, (part of the name used in the region)	
<i>Olea europea</i> L.AT-40 (Oleaceae)	1. F.Olivarum (Zeytin yapra ı) [1]	ovat-lanceolat shaped margin integer, venation pinnats glabrous, green skinny lvs.
<i>Eucalyptus globules</i> Labill AT-45 (Myrtaceae)	2. F. Eucalpti (Ökalkiptüs yapra ı)*[11]	falcate shaped, margin integer, venation pennate rigid, green leaf
<i>Malva neglecta</i> Wall. AT-38 (Malvaceae)	3. F. Malvae (Ebegüimeci yapra ı)[12]	green, stalked, deep lobed, toothed lobes, pilosus leaf
<i>Urtica dioica</i> L AT-2 (Urticaceae)	4. F. Urticae (Isırgan yapra ı) [2],[4]	heart- shaped, long pointed, stalked, dull green, saw-toothed, leaf, with painfully stinging hairs
<i>Urtica urens</i> L. AT-7 (Urticaceae)	5. F. Urticae (Isırgan yapra ı)[20] [1]	heart- shaped, long pointed, stalked, dull green, saw-toothed, leaf, with painfully stinging hairs
<i>Juglans regia</i> L AT-11 (Juglandaceae)	6. F. Juglandis (Ceviz yapra ı)*[21]	dark green shiny, large pinnate lvs with 7-9 leaflets,each 6-15cm long
<i>Matricaria chamomilla</i> L. 18 (Asteraceae)	7. Fl. Chamomillae vulgaris (Papatya)[3]	Flower heads, 15 white ray florets, involucre yellowish green, greenish papery margin receptacle conical, hollow, leaves narrow, linear.
<i>Anthemis tictoria</i> L. AT-22 (Asteraceae)	8. Fl.Chamomillae romenae(Sarı papatya)[1]	Flower heads 2,5-4 cm across, golden yellow disc and ray florets, involucre bracts lanceolate, papery margined.
<i>Althaea officinalis</i> L. AT-8 (Malvaceae)	9. Fl. Althaeae (Hatmi çiçe i) [5],[31]	pale pink , 2,5-5cm epicalyx segments, 7-9,linear, calyx oval, velvety haired, petals, 1-1,5 cm length, anthers purple.
<i>Carthamus lanatus</i> L. AT-21 (Asteraceae)	10. Fl. Carthami (Haspir)[18],[22]	Disc-florets only present, fl. Heads thistle like, golden yellow, involucre bracts greenish-yellow, spiny.
<i>Punica granatum</i> L AT-9 (Punicaceae)	11. Fl. Granati (Nar çiçe i) *[30],[11]	oblong-lance shaped, shiny lvs.,large scarlet fls.,4cm across,petal crumpled, calyx fleshy, red, stamens 20, lvs. 2-9 cm hairless.
<i>Jambosa caryophyllus</i> Nied. (Myrtaceae)	12. Caryophylli (Karanfil)*[12],[1]	nail shaped, black, dried buds, carrying 4 imbricate petals.
<i>Zea mays</i> L AT-6 (Poaceae)	13. Stylus Maydis (Mısır püskülü)*[35]	a loose tangled mass of slender yellowish filamentous styles,5-20cm long.
<i>Thymra spicata</i> L. AT-27 (Lamiaceae)	14. Thymbrae (Zahterotu)[13],[16],[6]	elongated clusters of pink fls.,3-6 mm calyx 4 mm, cylindrical, two lipped, stamens 4.
<i>Teucrium polium</i> L. AT-5 (Lamiaceae)	15. H. Polii (Acı yav an)[33],[34]	dense globular terminal heads of pink, white or yellowish numerous fls.,stalk less, corolla, longer than calyx, calyx lobes blunt, leaf,oblong to linear, rounded teeth, margin inrolled.
<i>Ocimum basilicum</i> L. AT-41 (Lamiaceae)	16. H. Basilici (Feslegen)*[36],[34]	white or pink flowers., simple lvs., 2-6 cm stalked, oval shaped, dentate margin.
<i>Achillea millefolium</i> L. AT-29 (Asteraceae)	17. H. Millefolii (Civanperçemi)[27]	numerous fl. Heads 4-6 mm across, in dense, flat-topped, compound clusters, ray florets 5, white, pink,or redish, disc florets white or cream coloured,involucre bracts oblong, with a broad blackish papery margin, hairy
<i>Ammi visnaga</i> (L.) Lam. AT-32 (Apiaceae)	18. Fr. Ammi visnaga (Di otu)[29]	2 mm, oblong-ovoid frs., slightly laterally compressed with prominent ribs borne on slender rays in spreading umbels.

Table 1. Continued

Species, (Family)	Drug, (part of the name used in the region)	
<i>Foeniculum vulgare</i> (L.) Miller AT-4 (Apiaceae)	19. Fr. Foeniculi(Rezene)[17]	4-6 mm, ovoid frs.,with roun ded carpels ribs stout,dark greenish-yellow mericarp with 5 prominent ribs born on slender rays in spreading umbels.
<i>Petroselinum crispum</i> Nyman AT-1 (Apiaceae)	20. Fr. Petroselini (Maydanos meyesi)*[28],[19],[1]	2,5-3 mm, ovoid, dark brown, ripe fruit.
<i>Urticae pluliferae</i> L. AT-37 (Urticaceae)	21.Fr. Urticae pluliferae[25],[23] (Isırgan meyesi)	3 mm, ovoid, bright-black, ripe fuit.
<i>Rhus coriaria</i> L. AT-30 (Anacardiaceae)	22.Fr. Rhois coriariae[24],[15] (Sumak)	drupe, globular frs.,wooly haired brown ish purple when ripe, chopped pericarp
<i>Pistacia terebinthus</i> L. AT-26 (Anacardiaceae)	23. Fr.Pistaciae terebinthinae [14] (Menengiç)	6-8 mm nearly globular bluish-green frs red-black when ripe
<i>Crataegus monogyna</i> Jacq. AT-23 (Rosaceae)	24. Fr. Crataegi (Alıç)[14],[8]	8-10 mm, oval, dark red frs., with one seed
<i>Rosa canina</i> L. AT-10 (Rosaceae)	25. Fr. Rosae caninae [26](Ku burnu)	1,5-2 cm, globular, hairless, scarlet, orange-red, dried ripe, fruit.,seeds are covered with white papus
<i>Citrus aurantium</i> L. AT-19 (Rutaceae)	26. Pericarpium Aurantii[11],[20] (Turunç kabu u)	outer surface yellowwish or dark green, inner surface white, dried pericarp pieces
<i>Junglans regia</i> L. AT-36 (Juglandaceae)	27.Pericarpium Juglas nucum*[1] (Ceviz kabu u)	dark-brown, wrinkled, twisted, dried parts of pericarpium
<i>Cerasus vulgaris</i> Mill . AT-24 (Rosaceae)	28. Stipites Cerasorum *[11],[7] (Kiraz sapı)	3-4 cm long, thin, darkbrown, dried stalks
<i>Brassica rapa</i> L. AT-43 (Brassicaceae)	29. S. Rapae * [1],[11] ( algam tohumu)	2 mm, globular, blakish-red, tiny, ripe seeds
<i>Brassica nigra</i> (L.) Koch AT-29 (Brassicaceae)	30. S. Sinapis nigrae [9],[10](Hardal tohumu)	0,5-1mm, globular, dark redish-black, ripe seeds
<i>Raphanus sativus</i> L. AT-17 (Brassicaceae)	31. S. Raphani *[5],[11],[16] (Turp tohumu)	3 mm, nearly globular, greyish-brown, ripe seeds
<i>Trigonella foenum-graecum</i> L. AT-31 (Fabaceae)	32. S. Foenu graeci [22] [36] (Çemen)	3-5 x 2 mm, rhombodial, dark yellow-brown, smooth seeds
<i>Prunus amygdalus</i> L var. <i>amare</i> AT-39 (Rosaceae)	33. S. Amygdali amarum[11] (Acı badem)	1-1.5 cm, ovoid, brown, ripe, seeds carring wrinkled testa
<i>Helianthus annuus</i> L. AT-25 (Asteraceae)	34. S. Helianthus annuss*[14](Ayçekirde i)	somewhat flatte ned often stre aked with white and black, ripe achene seed
<i>Peganum harmale</i> L. AT-15 (Zygophyllaceae)	35. S. Pegani (Üzerlik otu)[11]	pyramidal, dar red, rough and winged seeds
<i>Cucurbita maxima</i> Lam AT-14 (Cucurbitaceae)	36. S. Cucurbitae [1],[11] (Kabak çekirde i)	ovoid, white seeds with hard testa
<i>Linum usitatissimum</i> L.AT-24 (Linaceae)	37. S. Lini [11] (Keten tohumu)	4-6 x 2-5 mm, ovoid, flatte ned with a short blunt beak, bright darked, glossy, ripe seeds
<i>Nigella sativa</i> L. AT-20 (Ranunculaceae)	38. Nigellae [1],[17] (Çörek out)	1.5 mm, trigular, blackt, ripe seeds
<i>Sesamum indicum</i> L. AT-29 (Pedaliaceae)	39. S. Sesami*[17] (Susam)	3 mm, ovoid, yellow, ripe seeds
<i>Sorghum bicolar</i> (L.) Moench AT-113 (Poaceae)	40. S. Sorghum bicolar L*[27] (Akdarı)	3 mm, globular, bugle like, yellow-white ripe seeds
<i>Orchis anatolica</i> Boiss. AT-33 (Orchidaceae)	41. T. Salep [15],[20] (Salep)	1-4 cm, egg-shaped, yellowish-white nearly opak, hard, rought

Table 2. The contents and the actual therapeutical usage of the drugs.

Drug	Contents (According to the source Baytop, Baytop 1984)	Use in folk medicine (According to the source Baytop, Baytop 1984)	Therapeuties
1.F.Olivarum	vol. oil, tannin, org. acids, resin	leafs and parts	diuretic, antidiarrhoeal antirheumatic, antidiabetic, orexigenic,
2.F. Eucalypti	vol. oil, resin, tannin	leafs and parts	antiseptic for urinary system and respiratory system by inhalatin.
3.F. Malvae	mucilage, pmetin, ascorbic acids, lipits	leafs and parts	emollient, demulcent, antiinflammatory, anticoagulant, hypoglycemian
4.F. Urticae	Indolic compounds, org. acids, ascorbic acid.	leafs and parts	Depurative, diuretic, antiinflammatory, hypoglycemian, anticogulant.
5.F. Urticae	Indolic compounds, org. acids, ascorbic acid.	leafs and parts	Depurative, diuretic, antiinflammatory, hypoglycemian, anticogulant.
6. F. Junglandis	vol.oil, tannin, bitter substance	leafs and parts	antiseptic, orexigenic, antidiarrhoeal, hypoglycemian tonic
7.Fl. Chamomillae	vol.oil, mucilage, resin flavonoids	flowers and parts	antiseptic, diuretic, carminative
8.Fl. Chamomillae romanae	vol. oil, mucilage, resin, flavonoids	flowers and parts	diuretic, carminate, antirheumatic, used in fabric dyeing
9.Fl. Althaeae	vol. oil, mucilage, lipids	flowers and parts	expectorant, diuretic, antilithic, emollient demulcent
10.Fl. Carthami	flavonoids, pigments	flowers and parts	dying in cosmetics and food
11.Fl. Granati	tannin, triterpenes, pigments	flowers and parts	Antidiarrhoeal
12.Fl. Caryophyllii	vol. oil, tannin, lipid	flowers and parts	carminative, stomachic, stimulant, antiseptic, analgesic
13.Stylus Maydis	vol. alkaloid, resing, maizeric, acid lipids, carbohydrates	style	antilithic, diuretic
14.H. Thymbrae	vol. Oil	grass and other parts	antiseptic, stimulant, spicery
15.H. Polii	vol. oil, tannin, flavonoids, resin saponin, bitter subs	grass and other parts	diaphoretic, antimicrobial, antiinflammatory,
16.H. Basilici	vol. oil, musilage	grass and other parts	demulcent, digestive, diuretic, carminative antioasmodic, anodyne, spicery
17.H. Millefolii	vol. oil, sesquiterpenes, glycoalkaloid	grass and other parts	diaphoretic, antipyretic, diuretic, hypotensive, astringent, urinary, antiseptic,emmanogogue
18.Fr. Ammi visnagae	lipits, resin, cromon, derivatives	fruit and seeds	anthilitic, diuretic, antitusive, carminative, antispasmodic
19.Fr. Foeniculi	lipids, vol. oil	fruit and seeds	stomachic, carminative, lactagogue, diuretic, antiseptic, aromatic
20.Fr. Crataegi	amines, tannin, ascorbic acid triterpene, flavonoids, bitter subs	fruit and seeds	sedative, antispasmodic, hypotensive, diuretic, hypotensive, diuritic, antidiarrhoeal
21.Fr. Urticae piluliferae	lipid, musilage	fruit and seeds	antipruritic, antirheumatic, diuretic, laxative, emmenagogue, vermifuge
22.Fr. Rhois coriariae	tannin, vol. oil, org. acids	fruit and seeds	antidiarrhoeal, antidiarrhoeal, hemostatic, antiseptic

Table 2.Continued

23.Fr. Pistaciae terebinthinae	resin, vol. oil, lipids	fruit and seeds	diuretic, tonic
24.Fr. Crataegi	amines, tannin, ascorbic acidtriterpene, flavonoids, bitter subs	fruit and seeds	sedative, antispasmodic, hypotensive, diuretic, hypotensive, diuritic, antidiarrhoeal
25.Pericarpium Aurantii	vol. oil, pectin, flavonoids, resin,	Pericarp	orexigenic, stomachic, collagogue, arometic
26.Pericarpium Aurantii	vol. oil, pectin, flavonoids, resin, bittersub	Pericarp	orexigenic, stomachic, collagogue, arometic
27.Pericarpium Juglandis	tannin, vol. oil, bitter subs	Pericarp	orexigenic, antidiarrhoeal, hypoglycemian, tonic, antiseptic
28.Stipites Cerasorum	tannin, K-salts	branches	diuretic, antidiarrhoeal, tonic.
29.S. Rapae	lipid	branches	disinfectant, diuretic
30.S. Sinapis nigrae	lipid, mucilage, glycoside (sinigrin)	branches	orexigenic, spicery, antiphlogistic, analgesic (topically blister)
31.S. Raphani	lipid, S-glycoside (glucoraphin)	branches	orexigenic, stimulant, chollagogue, antimicrobial
32.S. Foenugraeci	alc (trigonelline), sapogenins mucilage, lipid, proteins, aromatic hydrocarbon	branches	mucilaginous demulcent, laxative, nutritive, expectorant, orexigenic
33.S. Amygdali amarum	lipid, glycoside (amygdaline)	branches	expectoral, antitussive, diuritic, antidiabetic, ver mifuge, aromatic
34.S. Helianthi annui	lipid	branches	diuretic, expectorant
35.S. Pegani	lipid, alkaloid	branches	emmenagogue, narcotic, sedative, diaphoretic vermufuge
36.S. Cucurbitae	resin, lipid, sterol, amino acids	branches	anthelmintic, vermifuge
37.S. Lini	mucilage, lipids, glucoside, protein, wax, resin	branches	demulcent, laxative, antitussive, emollient, anodyne, resolvent
38.S. Nigellae	lipids, vol.oil, saponins, bitter subs	branches	diuretic, lactagogue, orexigenic, emmenagogue
39.S. Sasemi	lipid	branches	purgative
40.S. Sorghum bicolar	lipid, protein	branches	nutritive
41.T. Salep	amylum, mucilage	tuber	expectorant, emollient, tonic, antimicrobial, lactagogue

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