

## ORIGINAL RESEARCH

# Turkish folk medicinal plants, X: Ürgüp (Nevşehir)

Ertan Tuzlacı, İsmail Şenkardeş

**ABSTRACT:** This study was made to reveal the folk medicinal plants used traditionally in Ürgüp (Nevşehir). During the research all the settlement centers (total 24, including 20 villages) visited and the field works have been done between June 2009 - June 2010, in may, june and july, lasting for 32 days in total. The specimens of the plants used as folk remedies have been collected and the information such as local names, plant part(s) used, therapeutic effects, diseases and ailments treated, method of preparation and administration, dosage, duration of the treatment have been recorded. The collected plant specimens are kept in the Herbarium of the Faculty of Pharmacy, Marmara University (MARE). As a result of identification of 116 plant specimens, 67 species used as a traditional folk medicine, have been determined. Among them 52 species are wild and 15 species are cultivated plants. These plants and their local usages in treatment are presented in the text. The plants recorded in Ürgüp are mostly used for diabetes, cardiovascular diseases, cough, wound, asthma, stomach diseases and high cholesterol.

**KEY WORDS:** Folk Medicine, Medicinal Plants, Ürgüp, Nevşehir, Turkey

## AFFILIATIONS

Marmara Üniversitesi,  
Eczacılık Fakültesi,  
Farmasötik Botanik Anabilim  
Dalı, İstanbul, Türkiye

## CORRESPONDENCE

İsmail Şenkardeş  
E-mail:  
isenkardeş@marmara.edu.tr

Received:  
20.01.2011

Revision:  
14.03.2011

Accepted:  
14.03.2011

## INTRODUCTION

Pharmaceutical ethnobotany constitutes one of the most important subjects and components of ethnobotany. It is also one of the main scopes of our department and the results of our studies on the folk medicinal plants used traditionally, were presented in our previous papers and books (1-15).

This study on the plants used as traditional folk medicine, was done in Ürgüp (Nevşehir) in which there was no previous research and record in this subject.

Ürgüp is one of the most popular places all over the world mainly by its famous fairy chimneys and ancient churches carved into rocks (Figure 1-3).

Ürgüp is located between 38°24'-38°45' north latitudes and 34°47'-35°08' east longitudes at the south part of Middle Kızılırmak basin in the Middle Anatolia. Ürgüp has 574 km<sup>2</sup> area surrounded by İncesu (Kayseri) from the east, city of Nevşehir from the west, Avanos (Nevşehir) from the north, Derinkuyu (Nevşehir) from the southwest and Yeşilhisar (Kayseri) from the southeast (Figure 4). Kızılırmak River located at the north of Ürgüp, is the lowest place (930 m) and Hodul Dağı located at the southeast of Ürgüp, is the highest place (1936 m) of the district (16).

According to the "Flora of Turkey and the East Aegean Islands" (17) and our collections, 132 taxa (including 25 endemics to Turkey) were recorded in Ürgüp until now and among them the Irano-Turanian elements are dominant in the area.

The vegetation of Ürgüp district has a steppic character in many places (Figure 5, 6) and it consists of mainly herbaceous plants, low shrubs and small population of trees. Poplar and willow are some of the attractive trees particularly along the streams in the area.

Mainly cultivated plants of Ürgüp are as follows: apricot, walnut, mulberry, apple, cherry, quince and lime.

The agriculture of grape (Figure 7), potato and wheat have an importance in economy of Ürgüp besides tourism.

## MATERIAL AND METHODS

This study is carried out according to our previous local studies (3-11, 12, 14).

The materials of this study are the plant specimens which were collected in the field works have been done between June 2009-June 2010 in may, june and july lasting for 32 days in total. During the field works all the settlements (total 24, including



FIGURE 1. Fairy Chimneys



FIGURE 2. Fairy Chimneys



FIGURE 3. Ancient church curved into rock

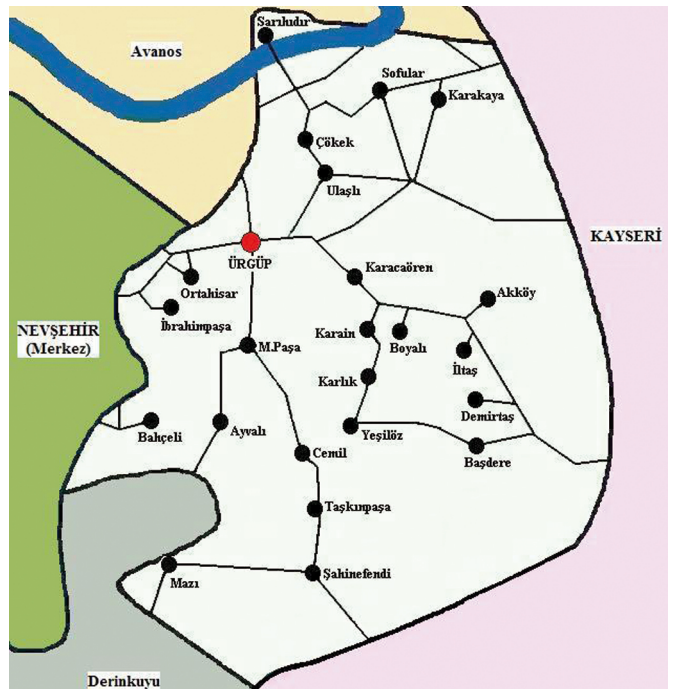


FIGURE 4. Map of Ürgüp



FIGURE 5. A view from the vegetation of Ürgüp



FIGURE 6. A view from the vegetation of Ürgüp

20 villages) were visited (Figure 8-11). They are listed below with a reference number of the record place of the local information.

1. Ürgüp (centre), 2. Başdere Beldesi, 3. Mustafapaşa Beldesi, 4. Ortahisar Beldesi, 5. Akköy, 6. Ayvalı, 7. Bahçeli, 8. Boyalı, 9. Cemil, 10. Çökek, 11. Demirtaş, 12. İbrahimpaşa, 13. İltaş, 14. Karacaören, 15. Karain, 16. Karakaya, 17. Karlık, 18. Mazı, 19. Sarlıdır, 20. Sofular, 21. Şahinefendi, 22. Taşkınpaşa, 23. Ulaşlı, 24. Yeşilöz

The plant specimens of this study (collected by İ. Şenkardeş), are kept in the Herbarium of the Faculty of Pharmacy, Marmara University (MARE).

For the identification of the plants, "Flora of Turkey and the East Aegean Islands" (17), "Flora Europaea" (18) and our herbarium (MARE) were mainly used.

The information, including local names, plant part(s) used, therapeutic effects, diseases and ailments treated, method of

preparation and administration, dosage, duration of the treatment have been obtained from local healers, experienced adults and patients by personel interviews.

All the photographs represented in this study were taken by İ.Şenkardeş.

## RESULTS AND DISCUSSION

In Ürgüp, 116 plant specimens used as a traditional folk medicine, have been collected and at the end of the identification of these specimens 67 species have been determined to be used as a remedy. These plants which were arranged in an alphabetical order of their botanical names are presented in Table 1. Among them 52 species are wild and 15 species are cultivated plants (marked with asterisk).

There are 8 endemics (*Anthemis fumariifolia*, *Astragalus lycius*, *Lycium anatolicum*, *Onopordum anatolicum*, *Onosma isauricum*, *Phlomis armeniaca*, *Salvia cryptantha*, *Verbascum vulcanium*) which were used in the treatment (Figure 12-15).



FIGURE 7. Vineyards



FIGURE 8. Başdere Beldesi



FIGURE 9. Çökek



FIGURE 10. Sarlıdır



**FIGURE 11.** Sofular



**FIGURE 12.** *Anthemis fumariifolia*



**FIGURE 13.** *Astragalus lycius*



**FIGURE 14.** *Lycium anatolicum*

The folk medicinal plants are mostly used for the treatment of diabetes, cardiovascular diseases, cough, wound, asthma, stomach diseases and high cholesterol.

In Ürgüp district *Thymus sipyleus* subsp. *rosulans*, *Euphorbia macroclada*, *Rosa canina*, *Salvia cryptantha*, *Viburnum opulus*, *Anthemis fumariifolia*, *Anthemis tinctoria* var. *tinctoria*, *Crataegus monogyna* subsp. *monogyna*, *Crataegus szovitsii*, *Cydonia oblonga*, *Juglans regia*, *Mentha x piperita*, *Parietaria judaica*, *Tribulus terrestris* are the most popular plants used in the treatment of many ailments.

*Astragalus lycius* and *Medicago rigidula* var. *rigidula* are used only in a mixture (including *Anthemis fumariifolia*, *Astragalus lycius*, *Medicago rigidula* var. *rigidula*, *Salvia cryptantha*, *Thymus sipyleus* subsp. *rosulans*) while *Anthemis fumariifolia*, *Salvia cryptantha* and *Thymus sipyleus* subsp. *rosulans* are used both solitary and in mixture.

*Juglans regia*, *Parietaria judaica* and *Viscum album* subsp. *album* are used not only in human, but also used in animal (cattle, hen) treatment.

Infusion and decoction are the methods mostly used for the preparations of the folk remedies as seen in many localities in Turkey.

Some cautions were also recorded from patients and healers. According to their information, the following plants can be harmful and dangerous: over dosing with *Amygdalus communis*, *Amygdalus orientalis* and *Euphorbia macroclada*, extended duration of treatment with *Clematis orientalis*.

According to a comparison with the other ethnobotanical studies (19-23) which were made around Nevşehir in the Middle Anatolia (Table 2), 31 of 67 species (used in Ürgüp) are the same in six localities. Usages of the 3 species are similar in



**FIGURE 15.** *Verbasicum vulcanicum*

three localities, usages of the 17 species are similar in two localities. In addition, there is no plant which has same usage in all the localities.

As a conclusion, the folk medicinal plants of Ürgüp and traditional knowledge on these plants were recorded by this research. In this way, a local culture on the folk medicinal plants has been transferred to future generations. This study is also a primary information for the researches which will be done on health.

## REFERENCES

1. Tuzlacı E. Honaz Dağı' nın tıbbî bitkileri. *Biyoloji Dergisi* 1977; 27 (1): 9-12.
2. Tuzlacı E. Türkiye' de bitkilerin yöresel kullanılışları (I). *Mar Üniv Ecz Der* 1985; 1 (1-2): 101-106.
3. Yazıcıoğlu A, Tuzlacı E. Folk medicinal plants of Trabzon (Turkey). *Fitoterapia* 1996; 67 (4): 307-318.
4. Tuzlacı E, Erol MK. Turkish folk medicinal plants. Part II:

- Eğirdir (Isparta). *Fitoterapia* 1999; 70: 593-610.
5. Tuzlacı E, Tolon E. Turkish folk medicinal plants, part III: Şile (Istanbul). *Fitoterapia* 2000; 71: 673-685.
6. Tuzlacı E, Eryaşar Aymaz P. Turkish folk medicinal plants, Part IV: Gönen (Balıkesir). *Fitoterapia* 2001; 72: 323-343.
7. Tuzlacı E, Alparslan DF. Turkish folk medicinal plants, Part V: Babaeski (Kırklareli). *J Fac Pharm Istanbul* 2007; 39: 11-23.
8. Tuzlacı E, Sadıkoğlu E. Turkish folk medicinal plants, Part VI: Koçanlı (Aydın). *J Fac Pharm Istanbul* 2007; 39: 25-37.
9. Tuzlacı E, Emre Bulut G. Turkish folk medicinal plants, Part VII: Ezine (Çanakkale). *J Fac Pharm Istanbul* 2007; 39: 39-51.
10. Tuzlacı E, Alparslan İşbilen DF, Bulut G. Turkish folk medicinal plants, VIII: Lalapaşa (Edirne). *Marmara Pharm J* 2010; 14 (1): 47-52.
11. Tuzlacı E, Doğan A. Turkish folk medicinal plants, IX: Ovacık (Tunceli). *Marmara Pharm J* 2010; 14 (3): 1-7.
12. Tuzlacı E. *Bodrum' da Bitkiler ve Yaşam*. İstanbul. 2005.
13. Tuzlacı E. 'Şifa Niyetine' Türkiye' nin Bitkisel Halk İlaçları. Alfa Yayınları. 2006.
14. Bulut G, Tuzlacı E. *Bozcaada' nın Çiçekleri ve Yararlı Bitkileri*. İstanbul. 2009.
15. Bulut G. Folk medicinal plants of Silivri (İstanbul, Turkey). *Marmara Pharm J* 2011; 15 (1): 25-29.
16. <http://www.urgup.gov.tr> (Access date: 15 January 2010).
17. Davis PH. *Flora of Turkey and the East Aegean Islands*, vol. 1-9. Edinburgh University Press, Edinburgh. 1965-1985.
18. Tutin TG. et al. *Flora Europaea*, vol. 2. Cambridge University Press. 2001.
19. Vural M, Karavelioğulları FA, Polat H. Çiçekdağı (Kırşehir) ve Çevresinin Etnobotanik Özellikleri. *Ot Sistemik Botanik Dergisi* 1997; 4 (1): 117-124.
20. Bağcı Y. Aladağlar (Yahyalı, Kayseri) ve Çevresinin Etnobotanik Özellikleri. *Ot Sistemik Botanik Dergisi* 2000; 7(1): 89-94.
21. Özdemir E. Niğde Aladağlar' ın Batısında Etnobotanik Bir Araştırma. Yüksek Lisans Tezi. İstanbul. (Danışman: Prof. Dr. Kerim Alpınar). 2005.
22. Özkan AM, Koyuncu M. Traditional Medicinal Plants Used in Pınarbaşı Area (Kayseri-Turkey). *Turkish J Pharm Sci* 2005; 2 (2): 63-82.
23. Öztürk M, Dinç M. Nizip (Aksaray) Bölgesinin Etnobotanik Özellikleri. *Ot Sistemik Botanik Dergisi* 2005; 12 (1): 93-102.

## Türkiye'nin halk ilacı bitkileri X: Ürgüp (Nevşehir)

**ÖZET:** Bu çalışma Ürgüp (Nevşehir) yöresinde geleneksel olarak kullanılan halk ilacı bitkilerini belirlemek amacıyla yapılmıştır. Araştırma esnasında yöredeki toplam 24 yerleşim merkezinin (20 köy dahil) hepsine gidilmiş ve Haziran 2009-Haziran 2010 tarihleri arasında mayıs, haziran ve temmuz aylarında toplam 32 gün süren arazi çalışmaları yapılmıştır. Halk ilacı olarak kullanılan bitkilerden örnekler toplanmış ve bu bitkilerin yöresel adları, yararlanılan kısımları, tedavi edici etkileri, bitkisel halk ilaçları ile tedavi edilen hastalıklar ve sağlık sorunları, ilacın hazırlanış ve uygulama yöntemi, dozu, uygulama süresi hakkında bilgiler derlenmiştir. Toplanan bu örnekler Marmara Üniversitesi Eczacılık Fakültesi Herbaryumu' nda (MARE) bulunmaktadır. 116 bitki örneğinin teşhisi sonucunda 67 türden geleneksel halk ilacı olarak yararlanıldığı saptanmıştır. Bunlardan da 52' si yabani, 15' i ise kültür bitkisidir. Bu bitkiler ve bunların tedavideki kullanılışları metin içinde tablo halinde sunulmuştur. Ürgüp yöresinde kaydedilen bitkilerden en çok şeker hastalığı, kalp-damar hastalıkları, öksürük, yara, astım, mide hastalıkları ve yüksek kolesterol tedavisinde yararlanılmaktadır.

**ANAHTAR SÖZCÜKLER:** Halk ilacı, Tıbbî Bitkiler, Ürgüp, Nevşehir, Türkiye

**TABLE 1.** Folk Medicinal Plants of Ürgüp (Nevşehir - TURKEY)

Botanical name Family Specimen number	Local name	Plant part used	Ailments treated Therapeutic effect	Preparation	Administration Dosage, Duration Record place
<i>Achillea wilhelmsii</i> C. Koch Compositae MARE 11819	Keditırnağı	Aerial parts	Abdominal pain	Infusion	Int. (24)
<i>Acroptilon repens</i> (L.) DC. Compositae MARE 11883	Karamuk otu	Root tips (black parts)	Wound	Crushed	Ext. (21)
* <i>Alcea rosea</i> L. Malvaceae MARE 11823, 11835	Gülfatma çiçeği	Flowers	Cough	Infusion	Int. (3, 9)
* <i>Allium sativum</i> L. Liliaceae MARE 12104, 12123	Sarımsak	Bulbils	Antihypertensive	3-4 bulbils crushed and mixed with ayran (yoğurt+water)	Int. (1)
		Bulbils	Sinusitis	Roasted with butter (+milk, honey)	Int., 1-2 spoonful x1 (10)
		Bulbils	Tinea	Crushed (+salt)	Ext. (1)
<i>Amygdalus communis</i> L. Rosaceae MARE 11802	Acı badem	Seeds	Diabetes	—	Eaten, 1 seed x1 (1)
<i>Amygdalus orientalis</i> Miller Rosaceae MARE 12101	Acı badem	Seeds	Diabetes	—	Eaten, 1 seed x1, after meals (10)
<i>Anthemis fumariifolia</i> Boiss. Compositae MARE 11878, 12110, 12118	Papatya Yoğurt çiçeği	Capitula	Sedative Strengthen	Infusion	Int. (18)
		Capitula	Flu Cold	Infusion	Int. (9)
		Capitula	Cough Asthma Urethritis Expectorant	Infusion (mixture of capitula of <i>Anthemis fumariifolia</i> , flowering parts of <i>Astragalus lycius</i> , aerial parts of <i>Medicago rigidula</i> var. <i>rigidula</i> , <i>Salvia cryptantha</i> and <i>Thymus sipyleus</i> subsp. <i>rosulans</i> )	Int., 3x1 (19)
<i>Anthemis tinctoria</i> L. var. <i>tinctoria</i> Compositae MARE 11843, 11856, 11896	Papatya Sarı papatya	Capitula	Cough	Decoction	Int. (6)
		Capitula	Sedative Strengthen	Infusion	Int. (2)
* <i>Armeniaca vulgaris</i> Lam. Rosaceae MARE 11794	Kayısı	Fruits	Constipation	—	Eaten, 1-2 day(s) (1)
<i>Asphodeline damascena</i> (Boiss.) Baker subsp. <i>damascena</i> Liliaceae MARE 11804	—	Fresh fruits	Warts	Crushed	Ext., 1 application x1 (1)
<i>Astragalus lycius</i> Boiss. Leguminosae MARE 12114	—	Flowering parts	Cough Asthma Urethritis Expectorant	Infusion, (mixture: see <i>Anthemis fumariifolia</i> )	Int., 3x1 (19)
<i>Centaurea depressa</i> Bieb. Compositae MARE 11876	Peygamber çiçeği	Capitula	Intestinal cancer	Infusion	Int., 2x1 (18)
<i>Centaurea solstitialis</i> L. subsp. <i>solstitialis</i> Compositae MARE 11864	İshal dikenini	Aerial parts	Diarrhea	Infusion	Int. (7)
* <i>Cerasus avium</i> (L.) Moench Rosaceae MARE 11796	Kiraz	Fruit stalks	Diuretic	Decoction	Int. (1)
<i>Chenopodium album</i> L. subsp. <i>album</i> var. <i>album</i> Chenopodiaceae MARE 11879	Kürdüm otu	Leaves	Analgesic (for cut and wounds)	Crushed	Ext. (18)

TABLE 1. (Continued)

Botanical name Family Specimen number	Local name	Plant part used	Ailments treated Therapeutic effect	Preparation	Administration Dosage, Duration Record place
<i>Chenopodium foliosum</i> (Moench) Aschers Chenopodiaceae MARE 11866	Kedi üzümü	Aerial parts	Diarrhea	Infusion	Int. (7)
<i>Clematis orientalis</i> L. Ranunculaceae MARE 11786	Şeytançubuğu	Aerial parts	Abscess	Chopped and crushed	Ext., wrapped in a cloth (1)
<i>Crataegus monogyna</i> Jacq. subsp. <i>monogyna</i> Rosaceae MARE 11869, 12098, 12106	Alıç	Leaves, flowers	Cardiovascular diseases	Infusion	Int. (7)
		Leaves, flowers, young shoots	Asthma	Infusion	Int., 3x1 (10)
		Flowers, young shoots	Bronchitis	Infusion	Int., 3x1 (20)
<i>Crataegus szovitsii</i> Pojark Rosaceae MARE 11785, 11836, 11848	Alıç	Flowers, fruits, branches	Cardiovascular diseases	Infusion	Int., 2x1 (1)
		Leaves, stem bark	Cardiovascular diseases	Decoction	Int. (6)
		Leaves	Stomach ulcer Stomach diseases	Decoction	Int. (23)
* <i>Cydonia oblonga</i> Miller Rosaceae MARE 11814, 11824, 11870	Ayva	Leaves	Stomach diseases	Decoction	Int. (17)
		Leaves	Cough	Infusion	Int. (9)
		Leaves	Expectorant	Infusion	Int. (7)
<i>Cynodon dactylon</i> (L.) Pers var. <i>villosus</i> Regel Gramineae MARE 11806, 12127	Ayrık otu	Subterranean parts	Urethritis	Decoction	Int. (1)
		Subterranean parts	Asthma	Infusion	Int., 3x1 (9)
<i>Eryngium campestre</i> L. var. <i>virens</i> Link Umbelliferae MARE 11832, 11842	Kengel	Roots	Prostate cancer	Decoction	Int. (9)
	Kenger	Roots	Prostate diseases	Decoction	Int. (6)
<i>Euphorbia macroclada</i> Boiss. Euphorbiaceae MARE 11782, 11868, 12096, 12109	Sütlegən	Latex	Warts Inflamed wounds Hand, lip fissures	—	Ext., only 1 application (1, 10, 20)
		Latex	Toothache	—	Dropped onto tooth (7)
		Latex	Stomach ulcer	Become dense	Swallowed with water, a small piece (about rice) x1 (20)
		Latex	Disinfectant	Dropped into water	— (20)
		Latex, aerial parts	Scorpion bite	Latex + aerial parts (crushed)	Ext., wrapped in a cloth (10)
<i>Gundelia tournefortii</i> L. var. <i>armata</i> Freyn et Sint. Compositae MARE 12132	Kenger	Latex (obtained from basal part of stem)	Refreshing	Become dense	Chewed (20)
		Roots (except central part)	Stomachic	—	Eaten, thrice a day (20)
* <i>Helianthus tuberosus</i> L. Compositae MARE 12103	Yer elması	Tubers	Constipation	—	Eaten, twice a day (10)
<i>Hyoscyamus niger</i> L. Solanaceae MARE 12122	Sağırkulak	Leaves	Toothache	—	Smoked as cigarette (10)
<i>Hyoscyamus reticulatus</i> L. Solanaceae MARE 12138	Sağırkulak	Leaves	Toothache	—	Smoked as cigarette (10)
<i>Hypericum perforatum</i> L. Guttiferae MARE 11861	Kantaron otu	Flowers	Cardiovascular diseases	Infusion	Int. (7)
		Flowers	Skin wounds	Oleat	Ext. (7)
<i>Hypericum scabrum</i> L. Guttiferae MARE 11783, 11827	Kantaron otu	Fruits	Eczema	Infusion	Ext. (1)
	Sarı kantaron Serkil otu	Aerial parts	Hemorrhoid Digestive system diseases	Infusion	Int., 3-4x1 (9)

TABLE 1. (Continued)

Botanical name Family Specimen number	Local name	Plant part used	Ailments treated Therapeutic effect	Preparation	Administration Dosage, Duration Record place
* <i>Juglans regia</i> L. Juglandaceae MARE 11801, 11826,12133	Ceviz	Seeds	High cholesterol	—	Eaten, 2-3 seeds x1 (1, 20)
		Unripe fruits' juice	Antifungal	—	Ext., 2-3 applications x1 (9)
		Leaves	Urethritis (cattle)	Infusion	Int. (9)
<i>Juniperus oxycedrus</i> L. subsp. <i>oxycedrus</i> Cupressaceae MARE 12128	Ardıç	Cones	Asthma	Decoction	Int., 3x1 (9)
<i>Lycium anatolicum</i> A. Baytop et R. Mill Solanaceae MARE 11800	Yapışkan çalı	Sap (obtained from young branches after exposing to fire)	Eczema	—	Ext., 1application x1 (1)
* <i>Malus sylvestris</i> Miller subsp. <i>mitis</i> (Wallr.) Mansf. Rosaceae MARE 11833	Bodur elma Taar elması	Fruits	Antihypertensive	—	Eaten, 2-3 fruits x1 (9)
<i>Malva neglecta</i> Wallr. Malvaceae MARE 11817, 11837	Ebe gümeçi	Aerial parts	Weakness Strengthen	Infusion	Int. (17)
		Leaves	Hemorrhoid	Decoction	Int. (6)
<i>Medicago rigidula</i> (L.) All. var. <i>rigidula</i> Leguminosae MARE 12113	Tosbağa yoncası	Aerial parts	Cough Asthma Urethritis Expectorant	Infusion,(mixture: see <i>Anthemis fumariifolia</i> )	Int., 3x1 (19)
<i>Mentha longifolia</i> (L.) Hudson subsp. <i>typhoides</i> (Briq.) Harley var. <i>typhoides</i> Labiatae MARE 11822	Yarpuz	Leaves	Refreshing Sedative	—	Chewed (2)
* <i>Mentha x piperita</i> L. Labiatae MARE 11810, 11818, 11849	Nane	Leaves	Halitosis	—	Chewed (1)
		Aerial parts	Digestive Stomach diseases	Decoction (+ lemon juice)	Int. (1, 17)
		Aerial parts	Cold Stomach ulcer	Decoction (+ lemon juice)	Int. (23)
<i>Mespilus germanica</i> L. Rosaceae MARE 11829, 11847	Muşmula	Leaves	Cough	Infusion	Int. (9)
		Leaves	Stomach ulcer Stomach diseases	Decoction	Int. (23)
* <i>Morus alba</i> L. Moraceae MARE 11798	Dut Kara dut	Fruits	Diabetes Liver diseases Mouth wounds High cholesterol	—	Eaten (1)
* <i>Morus nigra</i> L. Moraceae MARE 11799, 12137	Kara dut	Fruits	Diabetes Liver diseases Mouth wounds High cholesterol	—	Eaten (1)
		Leaves	Diabetes	Infusion	Int. (20)
<i>Onopordum anatolicum</i> (Boiss.) Eig Compositae MARE 11874	Kangal dikenı	Sap of stem	Tuberculosis	—	Int. (7)
<i>Onopordum carduchorum</i> Bornm. et Beauverd Compositae MARE 11791	Kangal dikenı	Fruits	Stomach ulcer	Infusion	Int. (1)
<i>Onosma isauricum</i> Boiss. et Heldr. Boraginaceae MARE 11846	Ada çayı	Aerial parts	Asthma Appetitive Cardiovascular diseases	Infusion	Int. (6)
<i>Parietaria judaica</i> L. Urticaceae MARE 11816, 11852, 11857	Duvar reyhanı Yapışık ot	Aerial parts	Diarrhea	Infusion	Int. (10)
		Aerial parts	Diarrhea (hen)	—	Eaten (17)
		Aerial parts	Rheumatism	Crushed	Ext. (2)
* <i>Petroselinum crispum</i> (Miller) A. W. Hill Umbelliferae MARE 11811	Maydanoz	Stems	Oedema	Decoction	Int. (1)
		Leaves	Halitosis Stomachic	—	Eaten (1)



TABLE 1. (Continued)

Botanical name Family Specimen number	Local name	Plant part used	Ailments treated Therapeutic effect	Preparation	Administration Dosage, Duration Record place
<i>Phlomis armeniaca</i> Willd. Labiatae MARE 11845	Ada çayı	Aerial parts	Asthma Appetitive Cardiovascular diseases	Infusion	Int. (6)
<i>Plantago lanceolata</i> L. Plantaginaceae MARE 11872	Kırkdamar otu	Leaves	Abscess	—	Ext., wrapped in a cloth (7)
<i>Plantago major</i> L. subsp. <i>intermedia</i> (Gilib.) Lange Plantaginaceae MARE 11812	Kırkdamar otu	Leaves	Inflamed wounds	—	Ext., wrapped in a cloth (1)
<i>Populus nigra</i> L. subsp. <i>nigra</i> Salicaceae MARE 11821	Kavak	Sap (obtained from cut stems)	Stomach cancer Intestinal cancer	—	Int. (1)
<i>Rosa canina</i> L. Rosaceae MARE 11784, 11820, 11831, 11839	Gülburnu Kuşburnu	Fruits	Tonsillitis	Infusion	Int. (1)
		Fruits	Cold Cough	Infusion	Int. (6, 9)
		Roots	Hepatitis	Decoction	Int. (1)
<i>Rosa hemisphaerica</i> J. Herm. Rosaceae MARE 12107	Kuşburnu	Fruits	Tonic	Decoction	Int., 3x1 (20)
<i>Rubus sanctus</i> Schreber Rosaceae MARE 11788, 11853	Böğürtlen çalısı Gülleğen diken	Fruits	Cardiovascular diseases	—	Eaten (1)
		Fruit juice	Mouth wounds	—	Ext. (1)
		Roots	Diabetes	Decoction	Int. (20)
<i>Rumex crispus</i> L. Polygonaceae MARE 12108	Evelek	Leaves	Diabetes	Infusion	Int., 3x1 (16)
<i>Rumex pulcher</i> L. Polygonaceae MARE 11850	Evelek	Leaves	Hypoglycemic	—	Eaten (10)
<i>Salvia cryptantha</i> Montbret et Aucher ex Benth Labiatae MARE 11790, 11825, 11838, 11862, 12111	Ada çayı Ballık otu Kokulu ot Sarı şabla	Flowering parts	Cough Asthma Expectorant	Infusion	Int. (1)
		Aerial parts	Stomach diseases	Infusion	Int. (9)
		Aerial parts	Diuretic Cardiac diseases	Infusion	Int. (6)
		Aerial parts	Hemorrhoid	Infusion	Int. (7)
		Aerial parts	Cough Asthma Urethritis Expectorant	Infusion,(mixture: see <i>Anthemis fumariifolia</i> )	Int., 3x1 (19)
<i>Sorbus domestica</i> L. Rosaceae MARE 11830	Üvez	Leaves	Cold Cough	Infusion	Int. (9)
<i>Stachys annua</i> (L.) L. subsp. <i>annua</i> var. <i>lycaonica</i> Bhattacharjee Labiatae MARE 11871	Haciosman otu	Aerial parts	Diabetes High cholesterol	Infusion	Int. (7)
<i>Thymus sipyleus</i> Boiss. subsp. <i>rosulans</i> (Borbás) Jalası Labiatae MARE 11792, 11805, 11828, 11867, 12112, 12129	Kekik	Aerial parts	Stomachic Antihypertensive	Infusion	Int. (1, 7)
		Aerial parts	Cardiovascular diseases High cholesterol	Infusion	Int. (9)
		Aerial parts	Cough Asthma	Infusion	Int., 3x1 (10)
		Aerial parts	Cough Asthma Urethritis Expectorant	Infusion,(mixture: see <i>Anthemis fumariifolia</i> )	Int., 3x1 (19)
* <i>Tilia cordata</i> Miller Tiliaceae MARE 11795	İhlamur	Flowers	Cough Expectorant	Decoction	Int. (1)

TABLE 1. (Continued)

Botanical name Family Specimen number	Local name	Plant part used	Ailments treated Therapeutic effect	Preparation	Administration Dosage, Duration Record place
<i>Tribulus terrestris</i> L. Zygophyllaceae MARE 11854, 11860, 11877	Çobançökerten Deve dikeneni Deveçökerten	Aerial parts	Kidney stones	Decoction	Int. (20)
		Aerial parts	Cardiovascular diseases	Infusion	Int. (7)
		Aerial parts	Antiinflammatory	Infusion	Int. (18)
<i>Urtica dioica</i> L. Urticaceae MARE 11787, 11841	Dızlağan Isırgan Isırgan otu	Aerial parts	Diuretic Oedema Urethritis	Decoction	Int. (1)
		Fruits	Cancer	+ honey	Eaten (6)
<i>Urtica urens</i> L. Urticaceae MARE 11809	Dızlağan Isırgan	Aerial parts	Rheumatism	—	Ext., hit to the knees, a few times a year (1)
<i>Verbascum lasianthum</i> Boiss. ex Benth. Scrophulariaceae MARE 11859	Siğirkuyruğu	Flowers	Hepatitis Hemorrhoid	Infusion	Int. (7)
		Flowers	Warts	Crushed	Ext., 1 application x1 (7)
<i>Verbascum vulcanium</i> Boiss. et Heldr. Scrophulariaceae MARE 12126, 12131	Sarıyalan	Flowers	Sinusitis	Infusion	Int., 3x1 (9)
		Flowers	Warts	Crushed	Ext., a few applications x1 (10)
* <i>Viburnum opulus</i> L. Caprifoliaceae MARE 11813, 11840, 11858, 12134	Kiraboğlu Kirabolu	Fruit juice	Kidney stones Kidney diseases	—	Int. (17)
		Fruits	Kidney sands Kidney stones	Pickle	Eaten, thrice a day (6, 7, 20)
		Flowers	Kidney stones	Infusion	Int. (7)
<i>Viscum album</i> L. subsp. <i>album</i> Loranthaceae MARE 11834, 11865, 11875	Güvelek Ökse otu	Leafy branches	Diabetes	Infusion	Int. (7)
		Leafy branches (including fruits)	Expectorant	Infusion	Int. (18)
		Leafy branches	Increase milk secretion (cattle)	—	Eaten (9)
		Leaves	Hepatitis	Crushed (+ honey)	Eaten (7)
* <i>Vitis vinifera</i> L. Vitaceae MARE 11808	Asma	Fruits	Anemia	As molasses	Int. (1)
		Sap (obtained from cut stems in spring)	Eye diseases	—	Ext., 1 application x1 (1)

\* = cultivated plant; + = mixed with; Int. = internal use; Ext. = external use; 1x1 = once a day; 2x1 = twice a day; 3x1 = thrice a day [it means 1 glass of decoction or infusion, if not otherwise (e.g. spoonful, application, seed, fruit) indicated.]

**TABLE 2.** The comparison of the same folk medicinal plants in Ürgüp (Nevşehir), Aladağlar (Niğde), Çiçekdağı (Kırşehir), Nizip (Aksaray), Pınarbaşı (Kayseri), Yahyalı (Kayseri) (≠: different medicinal usage of the plant, —: plants not recorded)

Botanical name	Usage					
	Ürgüp (Nevşehir)	Aladağlar (Niğde)	Çiçekdağı (Kırşehir)	Nizip (Aksaray)	Pınarbaşı (Kayseri)	Yahyalı (Kayseri)
<i>Achillea wilhelmsii</i>	Digestive system diseases	—	—	Digestive system diseases	≠	—
<i>Allium sativum</i>	Antihypertensive	—	≠	Antihypertensive	—	—
<i>Anthemis tinctoria</i> var. <i>tinctoria</i>	≠	≠	—	—	—	—
<i>Armeniaca vulgaris</i>	≠	—	≠	—	—	—
<i>Centaurea solstitialis</i> subsp. <i>solstitialis</i>	≠	—	—	≠	—	—
<i>Chenopodium album</i> subsp. <i>album</i> var. <i>album</i>	≠	—	—	≠	—	—
<i>Crataegus monogyna</i> subsp. <i>monogyna</i>	Cardiovascular diseases	Cardiovascular diseases	—	—	—	—
<i>Cydonia oblonga</i>	Respiratory system diseases	—	≠	Respiratory system diseases	—	—
<i>Euphorbia macroclada</i>	Disinfectant Warts	—	—	Disinfectant Warts	—	—
<i>Gundelia tournefortii</i> var. <i>armata</i>	Stomachic	Stomachic	≠	—	—	—
<i>Helianthus tuberosus</i>	≠	—	—	≠	—	—
<i>Hyoscyamus niger</i>	≠	—	—	—	≠	—
<i>Hypericum perforatum</i>	≠	≠	≠	—	—	—
<i>Hypericum scabrum</i>	≠	≠	—	≠	≠	≠
<i>Juglans regia</i>	High cholesterol	≠	—	High cholesterol	—	—
<i>Juniperus oxycedrus</i> subsp. <i>oxycedrus</i>	Asthma	≠	≠	—	Asthma	—
<i>Malva neglecta</i>	≠	≠	—	≠	≠	≠
<i>Mentha longifolia</i> subsp. <i>typhoides</i> var. <i>typhoides</i>	≠	≠	—	—	≠	—
<i>Morus nigra</i>	Mouth wounds	—	—	—	—	Mouth wounds
<i>Parietaria judaica</i>	≠	—	—	≠	—	—
<i>Phlomis armeniaca</i>	≠	≠	—	—	—	—
<i>Plantago lanceolata</i>	Abscess	Abscess	—	—	≠	≠
<i>Plantago major</i> subsp. <i>intermedia</i>	Inflamed wounds	—	—	≠	Inflamed wounds	—
<i>Rosa canina</i>	Cold	Cold	—	≠	≠	—
<i>Rumex pulcher</i>	≠	—	—	≠	—	—
<i>Salvia cryptantha</i>	Respiratory system diseases Stomach diseases	Respiratory system diseases	—	Respiratory system diseases Stomach diseases	—	—
<i>Thymus sipyleus</i> subsp. <i>rosulans</i>	High cholesterol	—	≠	High cholesterol	—	—
<i>Tribulus terrestris</i>	Cardiovascular diseases Kidney stones	—	≠	Cardiovascular diseases Kidney stones	—	—
<i>Urtica dioica</i>	Cancer Urinary system diseases	Cancer Urinary system diseases	—	Cancer	≠	≠
<i>Viscum album</i> subsp. <i>album</i>	Diabetes	—	≠	Diabetes	—	—
<i>Vitis vinifera</i>	Anemia	—	Anemia	Anemia	—	—