

## Kahramanmaraş Şehir Merkezindeki Aktar'larda Bulunan Tıbbi Bitkiler

Nazan ÇÖMLEKÇİOĞLU<sup>1</sup>, Şengül KARAMAN<sup>2</sup>

<sup>1</sup>Kahramanmaraş Sütçü İmam Üniversitesi, Ziraat Fakültesi, Tarla Bitkileri Bölümü, Kahramanmaraş

<sup>2</sup>Kahramanmaraş Sütçü İmam Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji Bölümü, Kahramanmaraş

Geliş Tarihi: 20.04.2007

Kabul Tarihi: 05.10.2007

**ÖZET:** Tıbbi bitkilerin kullanımıyla ilgili bilgi toplamak amacıyla Kahramanmaraş ilinde gerçekleştirilen etnobotanik amaçlı bu çalışma, şehir merkezinde bulunan 17 aktara anket uygulanarak gerçekleştirilmiştir. Yapılan anket ile aktarılarda satılan bitkilerin latince isimleri, yerel isimleri, kullanılan kısımları, tıbbi kullanımları, bitkilerin hazırlanışları araştırılmıştır. Araştırmaya göre 178 adet bitkiden 14 adedi Asteraceae, 12 adedi Fabaceae, 11 adedi Lamiaceae, 9 adedi Rosaceae ve 9 adedi Apiaceae familyalarına aittir. Bitkilerin büyük çoğunluğu Türkiye'deki farklı yörelerden sağlanmış olup (yaklaşık % 84), bunların da büyük bir kısmı doğal floradan toplanmıştır. Aktarılarda satılan bitkiler genel olarak sindirim sistemi (49 bitki), idrar yolları (34 bitki), solunum (20 bitki), şeker (14 bitki), kalp-damar ve kolesterol (9 bitki) hastalıklarında ve yatiştirici olarak (9 bitki) kullanılmaktadır. Bitkilerle tedavinin çoğunlukla bitkilerin tek olarak kullanılması ile gerçekleştirildiği, bununla birlikte bitkilerin karışımalar şeklinde de önerildiği tespit edilmiştir. Genel olarak kaydedilen bitki türleri bölge halkı tarafından bilinmektedir. Aktarılardan toplanan yerel etnobotanik bilgiler ve ilgili literatürler karşılaştırılmış ve ishal, kusma, bulantı, pişik, el bakımı, romatizma, bel kayması ve sinüzit için Kahramanmaraş'ta kullanılan altı farklı karışım yeni bilgi olarak sunulmuştur.

**Anahtar Kelimeler:** Aktar, etnobotanik, anket, tıbbi bitkiler, Kahramanmaraş

### The Medicinal Plants found in the Local Herbal Markets in the city of Kahramanmaraş in Turkey

**ABSTRACT:** An ethnobotanical survey was made to collect information on the use of medicinal plants in Kahramanmaraş. This study was carried out with the assistance of 17 traditional medicinal plant holders in city center using a questionnaire. Information regarding latin name, public name, part(s) used, medicinal uses, preparations of plants were collected with this questionnaire. According to survey 178 plant taxa were members of Asteraceae (14 taxa), Fabaceae (12 taxa), Lamiaceae (11 taxa), Rosaceae (9 taxa) and Apiaceae (9 taxa). The majority of the plants are obtained from Turkey (about 84%) and most of them are collected from native flora. The highest number of taxa were used for gastrointestinal (49 plants), the diuretic (34 plants), respiratory (20 plants), diabetic (14 plants), cardiovascular-cholesterol (9 plants) disorders and as sedative (9 plants). Most of the remedies were prepared from single-species plants. However some mixtures were proposed by health-care practitioner. Generally, recorded plant species are known in folk medicine by local. The comparison of the collected folk phytotherapeutic data and ethnobotanical literatures showed that 6 different mixtures used in Kahramanmaraş for diarrhea, vomit, nausea, rash, corn, hand care, rheumatism, slipped disk and sinusitis were reported as new information.

**Key Words:** Herbalist, ethnobotany, survey, medicinal plants, Kahramanmaraş

### INTRODUCTION

Since ancient times man used various natural materials as a source of medicines. Plants have always had an important role to play in medicine and public health (Ghorbani, 2005). Nearly 80 % of the world population use traditional medicine, mainly medicinal plants, to cure diseases and to improve health. In developing countries and rural societies, the use of medicinal plants is both a valuable resource and a necessity, and furthermore it provides a real alternative for primary health care systems (Macia et al., 2005). The knowledge of use of medicinal plants and their properties was acquired by means of trial and error and transmitted from generation to generation (Lev and Amar, 2000). But this knowledge and transmission is in danger because transmission between older and younger generation is not always assured (Anyinam, 1995).

Recent ethnobotanical studies reveal that traditional plant knowledge still exists in various areas of the

Mediterranean basin, particularly among elder people (Scherrer et al., 2005). Among the countries in the Middle-East, the richest flora has been reported for the Anatolian peninsula. According to recent figures, the number of taxa growing in Anatolia and Thrace is estimated about 11,750 (Yesilada, 2005).

Herbalists are still popular in procuring such remedies. The lists of natural remedies sold in Herbal shops throughout the Islamic countries in the Middle-East (Yesilada, 2005).

Recently, there are some works done in the country to record medicinally important plants. Compared with the huge knowledge of medicinal plants in the country, very little information is so far collected and documented (Giday et al., 2003).

Plant species may have different uses in different countries as well as different areas of the same country (Yeşilada, 2005). Traditional plant knowledge is still common in generally villages of Kahramanmaraş,

particularly among elder people. Herbalists are popular in procuring such remedies among people in city centre. In order to record any use of plants in the region, the ethnobotanical survey of herbalist of Kahramanmaraş is undertaking. The aims of this paper are the assessment of the most common species used by people in town centre and the most common uses.

### MATERIAL and METHOD

The data acquired for each plant were collected during the periods of April-May 2004 from 17 traditional herbal markets in Kahramanmaraş city center. Because of Kahramanmaraş is in the transition region of the Meditarrenean, Middle Anatolia and Southeast Anatolia, has a rich flora, the study was conducted in Kahramanmaraş. A prepared questionnaire was used to gather ethnobotanical information from the herbalists in the study area. There are questions on plant species, in particular these related to traditional medicine, local names of these plant species, the part of the plant used in this questionnaire.

### RESULTS and DISCUSSION

A total of 178 plant taxa belonging to 65 vascular plant families were reported as medicinal purposes in the herbal markets. The family with the largest number of plant species was in Asteraceae with 14 taxa, followed by Fabaceae with 12, Lamiaceae with 11, Rosaceae with 9, Apiceae with 9, Anacardiaceae with 7, Gramineae with 5 and Liliaceae, Malvaceae, Myrtaceae and Piperaceae with 4 plant taxa each. These 11 families represented about 46.6 % of the total plant taxa found. The remaining plant families had between 1 and 3 plant taxa. Recorded plant species with their scientific name, botanical name, local name, parts used, uses recorded, and preparation are listed in Table 3. Herbaceous species found in herbsalists have been reported by other authors as medicinal plants (Baser, 2002; Baytop, 1999; Ozhatay et al., 1997; Sener et al., 1998 and Ural, 2002)

The common plant taxa in herbalists were *Urtica dioica*, *Eugenia caryophyllata*, *Cinnamomum cassia*, *Rosmarinus officinalis*, *Foeniculum vulgare*, *Melissa officinalis*, *Lavandula stoechas*, *Laurus nobilis*, *Nigella sativa*, *Coriandrum sativum*, *Artemisia santonicum*, *Pimpinella anisum*, *Cassia angustifolia*, *Linum usitatissimum*, *Erythraea centaurium*, *Peganum harmala*, *Tribulus terrestris*, *Boswellia serrata*, *Salvia officinalis*, *Viscum album*, *Matricaria chamomilla*, *Pimenta officinalis*, *Origanum onites*, *Orthurus heterocarpus*.

More than 85 different medicinal indications were recorded to heal or alleviate a wide range of illnesses and pains. The highest number of species (49 plants), that represented 27.5 % of total species, was used to cure gastrointestinal system problems. 20 plant taxa (11.2 %) and 34 plant taxa (19.1 %) were used for diuretic and respiratory disorders respectively. Diabetic disorders were treated with 14 plant taxa (7.9 %) and 9

plant taxa were used for both cardiovascular-cholesterol and sedative problems.

Flower (27 plants), seeds (26 plants), fruit (26 plants), root (19 plants) and leaves (16 plants) were the most frequently used parts of the plant, followed by mastic (11 plants), both of stem or leaves (7 plants) and both of flower or leaves (7 plants). Other plant parts were also used such as stem, both of stem, leaves or flower (Table 1). The most common mode of preparation was decoction, crushed and infusion.

Herbalists have bought the most of plants from people that collect in the wild or cultivate them. Other species are imported by different middlemen such as *Cinnamomum cassia*, *Elettaria cardamomum*, *Orthurus heterocarpus*. *Thymus*, *Origanum*, *Thymbra*, *Corydotherymus*, *Satureja* is named as only 'kekik' by people and herbalists. Sometimes a lot of local names are used for an individual plant e.g. 'pelinotu, acı pelin' for *Artemisia absinthium* L. and 'sarı kantaron, binbirelikotu for *Hypericum perforatum* L. so complexity in denominated becomes. The uniformity of local names of the plants used by all herbalists and people are probably an indication that these species are generally well known as remedies.

Table 1. Parts of the plant used

| Usage Parts of Plant | Number of Plant taxa | Usage Parts of Plant   | Number of Plant taxa |
|----------------------|----------------------|------------------------|----------------------|
| Root                 | 19                   | Stem, leaves or flower | 4                    |
| Flower               | 27                   | Fruit                  | 26                   |
| Flower or Leaves     | 7                    | Fruit or Seeds         | 2                    |
| Stem                 | 2                    | Seeds                  | 26                   |
| Stem or Leaves       | 7                    | Juice                  | 3                    |
| Stem or Flower       | 2                    | Mastic                 | 11                   |
| Leaves               | 16                   | Other Uses             | 12                   |

The comparison of the collected phytotherapeutic data from Kahramanmaraş and ethnomedicinal literatures showed that 6 new uses were reported (for diarrhoea, vomit, nausea, rash, corn, hand care, rheumatism, slipped disk, and sinusitis) and their formulations in Turkey (Table 2) (Baytop, 1999; De-la-Cruz et al., 2007; Giday et al, 2003; Guerrera et al., 2005; Hammond et al., 1998; Macia et al., 2005; Mahishi et al., 2005; Scherrer et al., 2005). New applications and usage areas of these plants; *Orchis simia*, which is used for diarrhoea; *Abies cilicia*'s resin, paraffin and beeswax are used for rash, corn and hand crack. Powders of the *Citrus limon*, *Quercus* sp., *Cuminum cyminum*, *Alpinia officinarum* are mixed with alum for vomit, nausea and diarrhoea. For treatment of rheumatism the oil of *Nigella sativa*, *Piper nigrum*, *Origanum onites*, *Laurus nobilis*, *Guaiacum officinale*, *Olea europaea* and the oil of *Salmo trutta* are

mixed and smeared and massaged on aching area. *Cinnamomum camphora* is used for slipped disk by dissolving the plant in spirit. For sinusitis a little amount of *Quercus sp.* powder is snorted.

The data provided by our informants and analyzed in the present paper clearly show that folk knowledge on medicinal plants and uses is still alive in the studied

area. Etnobotanical studies constitute a valuable first step in the bioprospection process, which may lead to the development of new plant-based medicines.

As a result it can be concluded that a need exist to document indigenous knowledge on traditional plant uses before it becomes lost to future generations.

Table 2. Six new claims on ethnomedicinal knowledge

| Botanical Name and Family  | Local<br>(Common)<br>Name                      | Disease                  | Part and Method of Use  |
|--|--|--------------------------|---|
| <i>Orchis simia</i> Lam. (Orchidaceae)   | Salep  | Diarrhoea                | Powder of the plant nodules are mixed with oilless yoghurt and taken orally 1-2 spoonful              |
| <i>Abies cilicia</i> Carr. (Pinaceae)  | Mezda sakizi                                   | Rash, corn, hand crack   | Resin, paraffin and beeswax o plants are dissolved in milk. The pomade is applied over the skin.      |
| <i>Citrus limon</i> Burm. Fil.(Rutaceae)<br><i>Quercus</i> sp. (Fagaceae)<br><i>Cuminum cyminum</i> L. (Umbelliferae)<br><i>Alpinia officinarum</i> Hance (Zingiberaceae)  | Limon mazi kimyon havlican                     | vomit, nausea, diarrhoea | Powders of these plants with alum are mixed, taken orally one tea spoon.                              |
| <i>Nigella sativa</i> L. (Ranunculaceae)<br><i>Piper nigrum</i> L. (Piperaceae)<br><i>Origanum onites</i> L. (Lamiaceae)<br><i>Laurus nobilis</i> L (Lauraceae)<br><i>Guaiacum officinale</i> L. (Zygophyllaceae)<br><i>Olea europea</i> L. (Oleaceae) | çörekotu karabiber kekik defne pelesenk zeytin | Rheumatism               | The oil of these plants and of <i>Salmo trutta</i> are mixed and smeared on aching area and massaged. |
| <i>Cinnamomum camphora</i> T. (Lauraceae)  | kafur  | Slipped disk             | The plant is dissolved in spirit and applied to massaging to aching area.                             |
| <i>Quercus</i> sp. (Fagaceae)  | mazi   | Sinusitis                | A little amount of the plant's powder is snorted.   |

Table 3. List of the mostly used plants in the herbal market of the city of Kahramanmaraş (Turkey)

| Scientific Name | Botanical Name                                      | Local Name         | Parts Used   | Uses Recorded                            | Preparation          |
|-----------------|---|--------------------|--------------|--|----------------------|
| Adiantaceae     | <i>Adiantum capillus-veneris</i> L.                 | Karabacak          | Leaf         | Uric disorders and prostate              | Decoction            |
| Amaryllidaceae  | <i>Narcissus tazetta</i> L.                         | Nergis             | Stem, Flower | Blood cancer                             | Decoction            |
|                 | <i>Leucojum aestivum</i> L.                         | Çan çiçeği         | Flower       | Menstrual disorders                      | Decoction            |
| Anacardiaceae   | <i>Pistacia terebinthus</i> L.                      | Menengiç           | Butter       | Chest rest                               | Decoction            |
|                 |   |                    | Fruit        | To strengthen                            | Eaten                |
|                 |   |                    | Mastic       | Contusion                                | Simple or with Honey |
|                 | <i>Pistacia lentiscus</i> L. var. <i>latifolius</i> | Damla sakizi Coss. | Mastic       | Gastric ulcer, contusion and icecream    | Pill                 |
|                 | <i>Pistacia vera</i> L.                             | Antep fistığı      | Mastic       | Gastrointestinal disorders and contusion | Majoon with Honey    |
|                 | <i>Rhus coriaria</i> L.                             | Sumak              | Seed         | Spices                                   | Crushed              |
|                 |   | Tetri              | Leaf         | Hide processing and as paint             | Crushed              |

Table 3 (devam).

|                  |   |                                    |              |   |   |
|------------------|---|------------------------------------|--------------|---|---|
| Apiaceae         | <i>Foeniculum vulgare</i> Miller                                | Rezene                             | Fruit        | Sedative and stomach ache                               | Decoction                                 |
|                  | <i>Pimpinella anisum</i> L.                                     | Anason                             | Fruit        | Hypnotic and stomach ache                               | Decoction                                 |
|                  | <i>Cuminum cyminum</i> L.                                       | Kimyon                             | Fruit        | Spice and appetizing                                    | Crushed and decoction                     |
|                  | <i>Apium graveolens</i> L.                                      | Kereviz                            | Fruit        | Prostate and diuretic                                   | Decoction                                 |
|                  | <i>Ferula elaochytris</i> Korovin                               | Çaksırotu                          | Root         | Hypnotic, diabet and refresher                          | Decoction or crushed and mixed with honey |
|                  | <i>Angelica sylvestris</i> L.                                   | Melekotu                           | Leaf         | Asthma and constipation                                 | Decoction                                 |
|                  | <i>Dış otu</i><br><i>Ammi visnaga</i> L.<br>(kürdan,hilton otu) |                                    |              | Gall inflammation and bile stone                        | Infusion                                  |
|                  | <i>Coriandrum sativum</i> L.                                    | Kişniş                             | Fruit        | Appetizing and for indigestion                          | Decoction                                 |
|                  | <i>Acorus calamus</i> L.  | Hazanel                            | Root         | Prostate  | Decoction                                 |
|                  | <i>Calamus draco</i> Willd.                                     | Kardeş Kani                        | Resin        | Constipation and paint                                  |   |
| Aristolochiaceae | <i>Asarum europaeum</i> L.                                      | Kediotu-Avşarotu                   | Root         | Expectorant, diuretic, laxative and menstrual disorders | Decoction                                 |
|                  | <i>Artemisia absinthium</i> L.                                  | Pelinotu-Acı pelin                 | Leaf, Flower | Diabet, cancer, diuretic and inflammation               | Infusion                                  |
| Asteraceae       | <i>Artemisia dracunculus</i> L.                                 | Tarhun                             | Leaf         | Appetizing, menstrual disorders and constipation        | Decoction                                 |
|                  | <i>Artemisia cina</i> Berg.                                     | Horasan                            | Seed         | Gall bladder inflammation and bill sone                 | Infusion                                  |
|                  | <i>Helichrysum orientalis</i> (L) DC                            | çığra çiçeği-ölmezçiçek (altınotu) | Flower       | Urethra   | Decoction                                 |
|                  | <i>Helichrysum plicatum</i> DC.                                 | Altınotu (Mantuvar)                | Leaf         | Diuretic and constipation                               | Decoction                                 |
|                  | <i>Achillea millefolium</i> L.                                  | aslanpençesi (civanperçemi)        | Stem, Flower | Inflammation  | Infusion                                  |
|                  | <i>Inula helenium</i> L.  | Andız otu                          | Seed         | Shortness of Breath                                     | Decoction                                 |
|                  | <i>Carthamus tinctorius</i> L.                                  | Aspir                              | Flower       | Rheumatism  | Decoction                                 |
|                  | <i>Arctium tomentosum</i> Miller                                | Dulavrat otu                       | Flower       | Diuretic and to get thin                                | Decoction and Mixed                       |
|                  | <i>Gundelia tournefortii</i> L.                                 | Yayla(kenger)                      | Mastic       | Face stroke and intestines injury                       | Masticate                                 |
|                  | <i>Cynara scolymus</i> L.                                       | Enginar                            | Seed         | Appetizing, diuretic and for to discharge ballast       | Decoction                                 |
|                  | <i>Taraxacum officinale</i> Weber.                              | Karahindiba (arslandışı)           | Root         | Laxative, diuretic and for to discharge ballast         | Decoction                                 |

Table 3 (devam).

|                 |                                   |                                |              |  |                                      |
|-----------------|-----------------------------------|--------------------------------|--------------|--|--------------------------------------|
| Berberidaceae   | <i>Berberis crataegina</i> DC.    | Kadin tuzluğu                  | Leaf, Flower | Expectorant and diuretic                           | Decoction                            |
| Boraginaceae    | <i>Alkanna tinctoria</i> L.       | Anik (Havaciva otu)            | Root         | As paint, yellow dye                               | Decoction                            |
| Brassicaceae    | <i>Capsella bursa-pastoris</i> L. | Çoban Çantası                  | Flower       | Constipation and diuretic                          | Infusion                             |
| Burseraceae     | <i>Boswellia serrata</i> Roxb.    | Akgünlük                       | Mastic       | For mental alertness, gastric ulcer and magic      | Crude                                |
| Cannabaceae     | <i>Humulus lupulus</i> L.         | Şerbetçi Otu                   | Root         | Stress   | Decoction or mixed                   |
|                 | <i>Cannabis sativa</i> L.         | Kendir-Kenevir                 | Flower       | Anelgesic  | Crushed                              |
| Caprifoliaceae  | <i>Sambucus nigra</i> L.          | Mürver                         | Flower       | Diuretic and laxative                              | Decoction                            |
| Caryophyllaceae | <i>Dianthus caryophyllus</i> L.   | Dağ karanfili                  | Root         | Antiseptic and anelgesic                           | Infusion                             |
|                 | <i>Dianthus barbatus</i> L.       | Hüsünü yusuf                   | Flower       | Sedative, diuretic and heart disease               | Decoction                            |
|                 | <i>Gypsophila arrostii</i> Guss.  | Helvacı kökü (çöven kökü)      | Root         | Skin care, diuratic, expectorant, added to food    | Crushed, infusion                    |
| Clusiaceae      | <i>Hypericum perforatum</i> L.    | Sarı Kantaron (Binbirdelikotu) | Flower       | Gastric ulcer, contusion and burn                  | Decoction or treatment wih olive oil |
|                 |                                   |                                | Flower       | Snakebite and scorpionbite                         | Lapa                                 |
|                 | <i>Hypericum spp.</i>             | Mayasıl Otu                    | Herba        | Hemorrhoid   | Decoction                            |
| Combretaceae    | <i>Terminalia citrina</i> Roxb.   | Sarı Halile                    | Fruit        | Diarrhea, palpitation and for to discharge ballast | Decoction                            |
|                 | <i>Terminalia chebula</i> Retz.   | Karahalile                     | Fruit        | Hemorrhoid, for gall and spleen                    | Crushed and mixed with Honey         |
| Cornaceae       | <i>Cornus mas</i> L.              | Kızılıcık                      | Fruit        | Constipation and cold                              | Decoction                            |
| Cucurbitaceae   | <i>Momordica charantia</i> L.     | Kudretnarı                     | Fruit        | Gastric ulcer and contusion                        | Treatment with Olive Oil             |
| Cupressaceae    | <i>Juniperus oxycedrus</i> L.     | Ardıç                          | Seed, Fruit  | Diuretic and to get thin                           | Decoction                            |
|                 | <i>Thuja articulata</i> Desf.     | Sandoraz (Sandalos)            | Mastic       | To get thin and 'ebru' art                         | Mixed                                |
| Elaeagnaceae    | <i>Elaeagnus angustifolia</i> L.  | İğde                           | Fruit        | Constipation                                       | Eaten                                |
|                 |                                   |                                | Flower       | Shortness of Breath                                | Decoction                            |
| Equisetaceae    | <i>Equisetum arvense</i> L.       | Kırk kilit otu (atkuyruğu)     | Leaf, Stem   | Kidney   | Infusion                             |
| Ericaceae       | <i>Erica vulgaris</i> L.          | Funda                          | Leaf         | To get thin  | Decoction                            |

Table 3 (devam).

|                  |   |                            |                       |   |                      |
|------------------|---|----------------------------|-----------------------|---|----------------------|
| Fabaceae         | <i>Glycyrrhiza glabra</i><br>L.                 | Meyan Kökü                 | Root<br>Juice         | Expectorant, cold<br>Cough and expectorant                    | Decoction<br>Sucked  |
|                  | <i>Cassia angustifolia</i><br>Vahl              | Sinameki                   | Leaf                  | To get thin   | Decoction            |
|                  | <i>Cassia fistula</i> L.                        | Hiyarşember                | Fruit                 | Laxative  | Decoction            |
|                  | <i>Astragalus sarcocolla</i> Dymock             | Enzurut                    | Mastic                | Furuncle injury   | Moistened            |
|                  | <i>Astragalus gummifer</i> Lab.                 | Kitre zamkı                | Mastic                | To get thin and 'Hat' art                                     | Mixed                |
|                  | <i>Ceratonia siliqua</i><br>L.                  | Harnup<br>(keçiboynuzu)    | Juice<br>Fruit        | Activator and cholesterol<br>Cholesterol and for ossification | Syrup<br>Eaten       |
|                  | <i>Trigonella foenum-graecum</i> L.             | Çemen tozu                 | Seed                  | Spice   | Additive             |
|                  | <i>Tamarindus indica</i><br>L.                  | Demirhindî                 | Fruit                 | Activator, cold and for thirst                                | Syrup                |
|                  | <i>Lupinus albus</i> L.<br>subsp. Albus         | Aci bakla (Yahudi baklaşı) | Seed                  | Diabet and intestinal parasites                               | Crushed              |
| Fagaceae         | <i>Quercus spp.</i>                             | Mazı                       | Fruit                 | Tooth infection   | In seperate pieces   |
|                  | <i>Quercus infectoria</i><br>Olivier            | Mazı (Siyah Mazı)          | Fruit                 | Feet fungus and contusion                                     | Crushed              |
|                  | <i>Quercus cerris</i><br>L.                     | Palamut                    | Fruit                 | Contusion, diarrhea and fungus                                | Crushed              |
| Gentianaceae     | <i>Erythraea centaurium</i> Pers                | Kırmızı kantarın           | Flower                | Cardiovascular disease and cholesterol                        | Decoction            |
| Hamamelidaceae   | <i>Liquidambar orientalis</i> Miller            | Günnük                     | Hull of stem          | Antiseptic  | Smoke                |
| Hippocastanaceae | <i>Aesculus hippocastanum</i> L.                | At kestanesi               | Fruit                 | Hemarhoide and skin care                                      | Crushed or Majoon    |
| Iridaceae        | <i>Crocus sativus</i> L.                        | Safran                     | Flower                | Appetizing and food decoration                                | Decoction            |
| Lamiaceae        | <i>Rosmarinus officinalis</i> L.                | Kuşdili (Biberiye)         | Leaf, flower          | Diuretic, constipation and to get thin                        | Decoction and Mixed  |
|                  | <i>Melissa officinalis</i> L.                   | Oğul Otu<br>(Limonotu)     | Leaf, Stem and flower | Cardiovascular disease, cholesterol and sedative              | Decoction and Rested |
|                  | <i>Hysopos officinalis</i> L.                   | Zulfa Otu                  | Leaf                  | Activator, gastrointestinal and added to food                 | Additive             |
|                  | <i>Lavandula stoechas</i> L.                    | Karabaşotu                 | Leaf, Stem and flower | Cardiovascular disease and cholesterol                        | Decoction and Rested |
|                  | <i>Lavandula angustifolia</i> Miller            | Lavanta                    | Flower                | Rheumatism and perfume  | Decoction            |
|                  | <i>Origanum onites</i><br><i>L.-Thymus</i> spp. | Kekik                      | Leaf, Stem and flower | Spices, cold  | Decoction            |

Table 3 (devam).

## Lamiaceae

|                               |             |                 |  |                          |
|-------------------------------|-------------|-----------------|--|--------------------------|
| <i>Origanum majorana</i> L.   | Mercanköşk  | Flower          | Sedative, stomach upset, diuretic and constipation | Decoction                |
|                               |             | Leaf,           |  | Decoction or             |
|                               |             | Stem and flower | Spices, cold, influenza                            | treatment with olive oil |
| <i>Mentha piperita</i> L.     | Nane        |                 |  |                          |
| <i>Salvia officinalis</i> L.  | Adaçayı     | Leaf, Flower    | Cold, diuretic and respiratory disorders           | Decoction                |
| <i>Teucrium chamaedrys</i> L. | Kumacıkotu  | Seed            | Eye itch   | Smoke                    |
|                               | Pav yavşanı | Seed            | Diabet   | Decoction                |

|                                   |             |              |   |                       |
|-----------------------------------|-------------|--------------|---|-----------------------|
| <i>Teucrium spp.</i>              | Mayasıl otu | Herba        | Hemorrhoid                              | Decoction             |
| <i>Stachys lavandifolia</i> Vahl. | Dağ çayı    | Leaf, Flower | Energizer, stomach upset and appetizing | Decoction             |
| <i>Ocimum basilicum</i> L.        | Fesleğen    | Leaf, Flower | Sedative, diuretic and spice            | Decoction and Crushed |

## Lauraceae

|                                |         |              |                                     |                      |
|--------------------------------|---------|--------------|-------------------------------------|----------------------|
| <i>Laurus nobilis</i> L.       | Defne   | Leaf, Seed   | Spice, appetizing and stomach upset | Decoction            |
| <i>Cinnamomum cassia</i> Blume | Tarçın  | Hull of stem | Spice and diabet                    | Decoction or Crushed |
| <i>Persea americana</i> Mill.  | Avakado | Leaf         | Bile stone and to get thin          | Decoction            |

## Liliaceae

|                                  |              |            |                                |                   |
|----------------------------------|--------------|------------|--------------------------------|-------------------|
| <i>Hyacinthus orientalis</i> L.  | Kaya sümbülü | Leaf, Stem | Prostate                       | Decoction         |
| <i>Urginea maritima</i> L.       | Adasoğanı    | Root       | Diuretic, cordial              | Dried and crushed |
| <i>Aleo vera</i> L.              | Sarisabır    | Gel        | Menstrual disorders and cancer | Infusion          |
| <i>Asphodelus aestivus</i> Brot. | Çırış        | Leaf       | Adhesive                       | Crushed or Majoon |

## Linaceae

|                               |                |      |                              |                              |
|-------------------------------|----------------|------|------------------------------|------------------------------|
| <i>Linum usitatissimum</i> L. | Keten (zeyrek) | Seed | Inflammation and cholesterol | Crushed and eaten with honey |
|-------------------------------|----------------|------|------------------------------|------------------------------|

## Loranthaceae

|                        |                  |             |                      |          |
|------------------------|------------------|-------------|----------------------|----------|
| <i>Viscum album</i> L. | Ökse otu (çekem) | Leaf        | Hypertension         | Infusion |
|                        |                  | Seed, Fruit | Pain and hernia cure | Crushed  |

## Lycopodiaceae

|                               |              |            |  |          |
|-------------------------------|--------------|------------|--|----------|
| <i>Lycopodium clavatum</i> L. | Kurt pençesi | Leaf, Stem | Liver diseases, hepatitis and rheumatism | Infusion |
|-------------------------------|--------------|------------|--|----------|

## Lythraceae

|                            |      |      |             |                   |
|----------------------------|------|------|-------------|-------------------|
| <i>Lawsonia inermis</i> L. | Kına | Seed | Feet fungus | Majoon with water |
|----------------------------|------|------|-------------|-------------------|

## Malvaceae

|                               |                     |            |   |           |
|-------------------------------|---------------------|------------|---|-----------|
| <i>Hibiscus sp.</i>           | İbisküs             | Flower     | Diabet and hypertension                       | Infusion  |
| <i>Hibiscus esculentus</i> L. | Bamya               | Seed       | Diabet  | Infusion  |
| <i>Althea officinalis</i> L.  | Hatmi çiçeği (Hira) | Flower     | Bronchitis, asthma and respiratory disorders  | Decoction |
| <i>Malva sylvestris</i> L.    | Ebegümeci           | Leaf, Stem | Respiratory infection and intestinal disorder | Decoction |

## Moraceae

|                       |         |       |                            |       |
|-----------------------|---------|-------|----------------------------|-------|
| <i>Morus nigra</i> L. | Karadut | Juice | Activator and mouth injury | Syrup |
|-----------------------|---------|-------|----------------------------|-------|

## Myristicaceae

|                                   |                  |       |                           |                              |
|-----------------------------------|------------------|-------|---------------------------|------------------------------|
| <i>Myristica fragrans</i> Houtten | Hindistan cevizi | Fruit | Stroke, flicker and spice | Crushed and eaten with honey |
|-----------------------------------|------------------|-------|---------------------------|------------------------------|

Table 3 (devam).

|                |   |                           |            |   |   |
|----------------|---|---------------------------|------------|---|---|
| Myrtaceae      | <i>Myrtus communis</i><br>L.            | Mersin yaprağı            | Leaf       | Appetizing and diuretic                             | Decoction                                 |
|                | <i>Eucalyptus globulus</i> Labill.      | Okaliptüs                 | Leaf       | Respiratory system disorders                        | Decoction                                 |
|                | <i>Pimenta officinalis</i><br>Lindi.    | Yenibahar                 | Seed       | Spice   | Crushed                                   |
|                | <i>Eugenia caryophyllata</i><br>Thunb.  | Karanfil                  | Seed       | Spice, added to food, halitosis and tooth ache      | Grain                                     |
|                |   |                           |            |   |   |
| Orchidaceae    | <i>Orthurus heterocarpus</i><br>(Boiss) | Zencefil                  | Root       | Cough and spice                                     | Crushed and mixed with honey or decoction |
|                | <i>Orchis simia</i> Lam.                | Salep                     | Tuber      | Diarrhea and for ossification                       | Crushed                                   |
| Papaveraceae   | <i>Papaver somniferum</i> L.            | Haşhaş                    | Seed       | Analgesic and hypnotic                              | Decoction                                 |
|                |   |                           |            | Sedative, cough, respiratory disorders and hypnotic |   |
|                | <i>Papaver rhoes</i> L.                 | Gelincik                  | Seed       |   | Infusion, syrup                           |
|                | <i>Fumaria officinalis</i><br>L.        | Şahtere otu               | Flower     | Diuretic, to get thin, sedative and tension         | Decoction                                 |
| Pedaliaceae    | <i>Sesamum indicum</i><br>L.            | Susam                     | Seed       | Added to food                                       | Additive                                  |
| Pinaceae       | <i>Abies cilicica</i> Carr.             | Mezla (Mezda)             | Mastic     | Gastric ulcer and contusion                         | Majoon with Honey                         |
|                | <i>Pinus spp.</i>                       | Çam sakızı                | Mastic     | Contusion, cosmetic and drud industry               | Salve                                     |
| Piperaceae     | <i>Piper cubeba</i> L.                  | Kebabiye (Kuyruklu Biber) | Seed       | Spice, appetizing and urine system                  | Decoction or mixed with honey             |
|                | <i>Piper nigrum</i> L.                  | Karabiber                 | Seed       | Rheumatism and spice                                | Crushed                                   |
|                | <i>Piper longum</i> L.                  | Darül fulfül              | Root       | Spice, cold and appetizing                          | Crushed and mixed with honey              |
|                |   |                           |            |   |   |
| Plantaginaceae | <i>Plantago</i> sp.                     | Sinirli ot                | Leaf, Stem | Diuretic and furuncle                               | Decoction                                 |
| Poaceae        | <i>Zea mays</i> L.                      | Mısır                     | Flower     | Diuretic, to get thin and kidney                    | Decoction                                 |
|                | <i>Agropyron repens</i><br>L.           | Ayrıkotu                  | Leaf, Stem | To get thin   | Decoction                                 |
|                | <i>Hordeum vulgare</i><br>L.            | Arpa                      | Seed       | To get thin and kidney stone                        | Decoction                                 |
|                | <i>Avena sativa</i> L.                  | Yulaf                     | Seed       | Skin care or digestion                              | Eaten or Mask                             |
| Polygonaceae   | <i>Rheum officinale</i><br>Baillon      | Ravant çini (Ravent Kökü) | Root       | Intestinal disorder and gripes                      | Infusion                                  |
| Punicaceae     | <i>Punica granatum</i><br>L.            | Nar                       | Flower     | Shortness of breath and diabet                      | Decoction                                 |
| Ranunculaceae  | <i>Nigella sativa</i> L.                | Çörekotu                  | Seed       | Added to food, cough, expectorant                   | Crushed and mixed with honey              |
| Rhamnaceae     | <i>Zizyphus jujuba</i><br>Miller        | Hunnap                    | Fruit      | Cough   | Eaten                                     |
|                | <i>Paliurus spina-christi</i> Miller    | Karaçalı                  | Seed       | Kidney and bile stone                               | Infusion                                  |

Table 3 (devam).

Rosaceae

|                  |  |                                |              |   |                                  |
|------------------|--|--------------------------------|--------------|---|----------------------------------|
|                  | <i>Rosa gallica</i> L.                       | Gül                            | Flower       | Skin Care   | Decoction                        |
|                  | <i>Rosa canina</i> L.                        | Kuşburnu                       | Fruit        | Cold  | Decoction                        |
|                  | <i>Amygdalus communis</i> L.                 | Açı badem                      | Fruit        | Diabetes  | Eaten                            |
|                  | <i>Cydonia oblonga</i> Miller                | Ayva                           | Leaf         | Cough and influenza                                 | Decoction                        |
|                  | <i>Prunus avium</i> L.                       | Kiraz                          | Fruit        | To get thin   | Decoction                        |
|                  | <i>Prunus mahaleb</i> L.                     | Mahlep                         | Seed         | Diabet and added to cake                            | Crushed                          |
|                  | <i>Crataegus orientalis</i> Pallas ex Bieb.  | Aliç                           | Root         | Cardiovascular disorders                            | Infusion                         |
| Rubiaceae        | <i>Cinchona succirubra</i> Pavon             | Kınakına                       | Stem         | Appetizing  | Crushed and eaten with honey     |
|                  | <i>Rubia tinctorium</i> L.                   | Kök boyası                     | Root         | Natural dye   | Mixed                            |
|                  | <i>Galium aparine</i> L.                     | Yogurt otu                     | Leaf, Flower | Appetizing and diuretic                             | Decoction                        |
| Scrophulariaceae | <i>Verbascum phlomoides</i> L.               | Sığır kuyruğu                  | Flower       | Hemorrhoids   | Decoction                        |
| Simaroubaceae    | <i>Quassia amara</i> L.                      | Açı ağaç                       | Stem         | Diabet and pancreas                                 | Infusion and Mixed               |
| Solanaceae       | <i>Mandragora autumnalis</i> Bertol.         | Adam otu                       | Root         | Anelgesic   | Crushed and mixed with olive oil |
|                  | <i>Nicotina tabacum</i> L.                   | Enfiye (tütün)                 | Leaf         | Influenza   | Crushed                          |
|                  | <i>Capsicum annum</i> L.                     | Biber                          | Fruit        | Spices  | Crushed                          |
| Thymelaeaceae    | <i>Aquilaria agallocha</i> R oxb.            | Udu hindi                      | Root         | Antiseptic  | Crushed                          |
| Tiliaceae        | <i>Tilia sp.</i>                             | Ihlamur                        | Flower       | Diuretic, sedative and hypnotic                     | Decoction                        |
| Urticaceae       | <i>Urtica dioica</i> L.                      | Isırgan                        | Leaf         | Cancer  | Decoction                        |
| Verbenaceae      | <i>Vitex agnus-castus</i> L.                 | Hayıt                          | Seed         | Halitosis   | Mixed with honey                 |
| Violaceae        | <i>Viola odorata</i> L.                      | Menekşe                        | Flower       | Respiratory system disorders                        | Decoction                        |
| Vitaceae         | <i>Vitis vinifera</i> L.                     | Üzüm                           | Fruit        | Refresher   | Syrup                            |
| Zingiberaceae    | <i>Curcuma longa</i> L.                      | Zerdeşal                       | Root         | Hepatit and paint                                   | Decoction or mixed with honey    |
|                  | <i>Elettaria cardamomum</i> Maton var. Minus | Kakule                         | Seed         | Appetizing, halitosis, hypnotic and added to coffee | Crushed or Decoction             |
| Zygophyllaceae   | <i>Tribulus terrestris</i> L.                | Deve çökerten (Çoban çökerten) | Leaf, Stem   | Cardiovascular disorders and cholesterol            | Decoction                        |
|                  | <i>Peganum harmala</i> L.                    | Üzerlik                        | Seed         | Hemorrhoid  | Roasted                          |
|                  | <i>Agrimonia eupatoria</i> L.                | Koyunotu                       | Root         | Constipation and diuretic                           | Decoction                        |

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