

## **Medicinal plant recipes from Kırklareli**

**Şükran Kültür**

Department of Pharmaceutical Botany, Faculty of Pharmacy, Istanbul University,  
34116 Istanbul, Turkey

**Abstract:** In this study, have been reported different medicinal plant recipes in the Kırklareli region. 15 medicinal plant recipes belonging to 20 families (20 wild plant species, 7 cultivated plant species) which were used for different medicinal purposes by local people have been recorded totally 27 plant species in the area. Traditional medicinal plant recipes have been mostly used for the treatment of cough, cold and influenza.

**Key words:** Ethnobotany, Kırklareli, Turkey, medicinal plant.

## Introduction

Kırklareli province is located in the European part of Turkey ( $41^{\circ}13'34''$ - $42^{\circ}05'03''$  N,  $26^{\circ}54'14''$ -  $28^{\circ}06'15''$ E), at an altitude of 203 m, and covers an area of 6650 km<sup>2</sup> (Figure 1). The European Turkey (Turkish Thrace) covers, 23 500 km and has approximately 2500 vascular plant species (1). Its population numbers about 328 461, according to the state population census in 2000 (2). The majority of the population consists of immigrants from the Balkan Countries. The city Kırklareli has seven districts and 177 villages (3; 4). It represents two different type climates with annual rainfall 570 mm and 13 C. The vegetation of the area comprises forests of *Carpinus*, *Quercus*, *Fagus*, and a special forest community of *Alnus*, *Fraxinus*, *Salix* and *Ulmus* named “Longoz”. The Ergene river basin, Mt. Istranca and İğneada Longoz Forest are parts of the Kırklareli province and have been determined as Important Plant Areas of Turkey (5). The aim of this ethnobotanical study’s is to collect systematic information about the medicinal plant and to documented mixed medicinal plant recipes in Kırklareli.

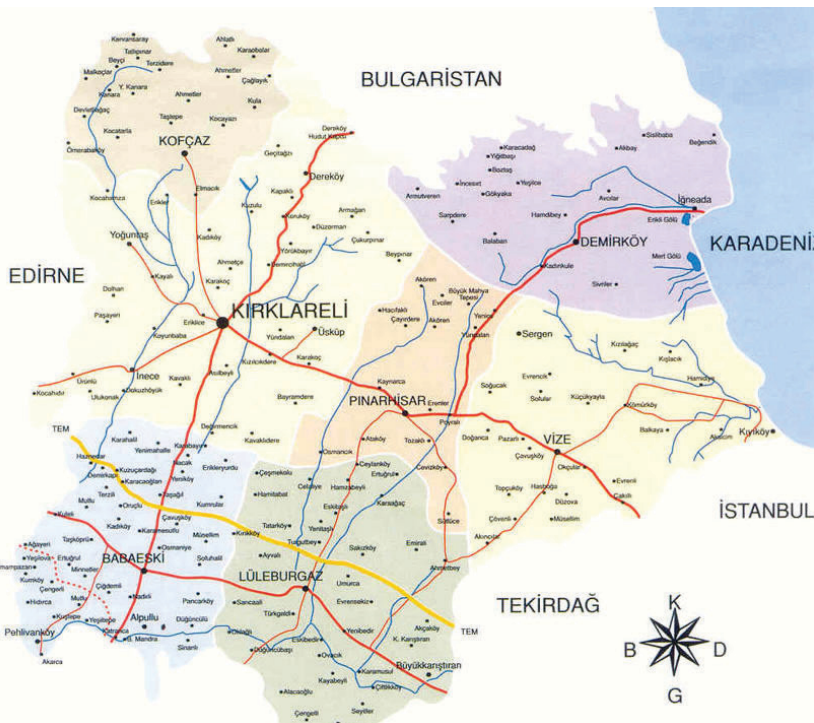


Figure 1. The map of Kırklareli province

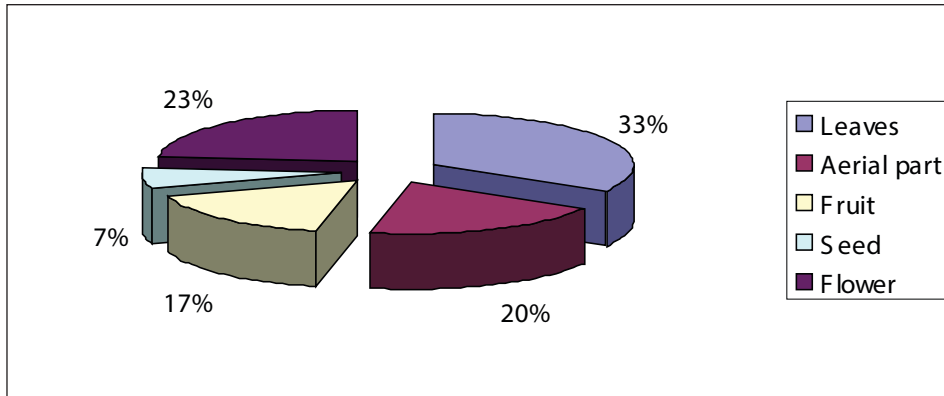
## Material and methods

The ethnobotanical field study was carried out between the years 2000-2004. The informations including the various data such as local name, part of the used plants, preparation methods were obtained by mean of direct interviews with villagers who know practice about the useful plants. The plant specimens were collected with the help of respondents. The plant specimens are kept in the Herbarium of the Faculty of Pharmacy, Istanbul University (ISTE). The “Flora of Turkey and the East Aegean Islands” (6, 7, 8) was mainly used for the taxonomic determination of the plants.

## Results and discussion

During the research Project (9) approximately 500 voucher specimens were collected in the investigated area. According to identification results, 126 traditional medicinal plants (100 wild species and 26 cultivated plant species) have been reported from Kırklareli (10). The another ethnobotanical study was carried out in the village of this region, which obtained 105 plant taxa belonging to 50 plant families that were useful for different purposes except medicinal use (11). In the present study, 15 medicinal plant recipes belonging to 20 plant families (20 wild species and 7 cultivated plant specimens) have been reported (Table 1). Most of the medicinal plant recipes consist of two plant species. 20 different medicinal uses were obtained from these plant recipes. The traditional medicinal plants have been mostly used for the treatment of cough, cold and influenza. The local people used different part of the plant species to prepare ethnomedicine. The most frequently used parts were leaves and flowers (Figure 2).

Our recorded data were compared with the ethnobotanical studies which were made in the European part of Turkey (12, 13, 14, 15, 16). Only one study which is Babaeski district to Kırklareli have been reported 15 different medicinal plant recipes. Some of them comprises of two or four-five plant species. There are different or similar medicinal uses. For example different plant recipe is used for same medicinal purpose. In our study the medicinal plant recipe (*Thymus longicaulis* subsp. *longicaulis* var. *longicaulis* + *Plantago lanceolata* + *Verbascum* sp.) used for asthma in the investigation area; in the Babaeski mixed plant recipe (*Pistachia terebinthus* + *Matricaria chamomilla* var. *recutita*) have been used for asthma (14).



**Figure 2.** The graphic of used parts

**Table 1.** Medicinal plant recipes from Kirklareli

Botanical names	Used parts	Uses	Preparation/ administration
<i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas <i>Plantago lanceolata</i> L. <i>Verbascum</i> sp.	Flower + Leaves	Bronchitis, asthma	Decoction, oral administration
<i>Malva sylvestris</i> L. <i>Morus nigra</i> L. <i>Rubus discolor</i> Weihe & Nees	Root Cortex Root	Abortive	Decoction, oral administration
<i>Persica vulgaris</i> Miller <i>Cerasus vulgaris</i> Miller <i>Cydonia oblonga</i> Miller <i>Rubus hirtus</i> Waldst. & Kit.	Leaves Leaves Leaves Leaves	Rheumatism	Decoction, oral administration
<i>Urtica dioica</i> L. <i>Sambucus ebulus</i> L.	Roots Roots	Analgesic	External uses, bathing two times a day for 10
<i>Tilia platyphyllos</i> Scop. <i>Citrus limon</i> (L.) Burm. Fil. <i>Piper nigrum</i> L.	Flowers Fruit	Antitussive	Decoction, oral administration
<i>Olea europea</i> L. <i>Allium cepa</i> L.	Seed bulbus	Sprain, bruise, edema	Crushed material mixed with vinegar and wheat flour and wrapping external.
<i>Thea sinensis</i> L. <i>Piper nigrum</i> L.	Leaves fruit	Antitussive	Infusion oral administration
<i>Pimpinella anisum</i> L. <i>Anthemis tinctoria</i> L.	Fruit Flowers	Abdominal pain (for children)	Decoction, oral administration

<i>Tilia platyphyllos</i> Scop. <i>Cydonia oblonga</i> Miller	Flowers Leaves	expectorant cold and influenza	Decoction, oral administration
<i>Urtica dioica</i> L. <i>Malva sylvestris</i> L. <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas <i>Prunus spinosa</i> L.	Leaves  Leaves  Aerial part Flowers	  Asthma, cough, cold, influenza	  Decoction, oral administration
<i>Melissa officinalis</i> L. <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas	Aerial part  Aerial part	cardiac diseases	Infusion oral administration
<i>Lavandula stoechas</i> L. <i>Melissa officinalis</i> L. <i>Tribulus terrestris</i> L. <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas	Flowers Aerial part	Diuretic, cholesterol lowering, cold, influenza, cough	Decoction, oral administration
<i>Malva sylvestris</i> L. <i>Urtica dioica</i> L. <i>Cotinus coggyria</i> Scop.	Aerial part Leaves	Kidney ailments	Decoction, oral administration
<i>Pimpinella anisum</i> L. <i>Nigella sativa</i> L.	Fruit Seed	Insomnia (for babies)	Oral administration, Powdered material mixed with sugar and taken teaspoon before sleeping

## References

1. Özhatay N, Byfield A. İstanbul Florasının Önemi ve Tehdit Altındaki Türler, Kasnak Meşesi ve Türkiye Florası Sempozyumu, 21-23 September 1998, İstanbul, Bildiri Kitabı, 96-113 (2000).
2. Anonymous, Encyclopedia of Turkish Provinces, vol. 2 Prizma Press, İstanbul (2005).
3. Karaçam N, Past and Present Kırklareli. Özyılmaz Press, Kırklareli (1995).
4. Yılmaz Z. Kırklareli 2000. Mega Press, Kırklareli (2000).
5. Özhatay N, Byfield A, Atay S. Important Plant Areas of Turkey. WWF Turkey Press, İstanbul (2003).
6. Davis PH. (ed.) Flora of Turkey and the East Aegean Islands. Vol. 1-9, Edinburgh University Press, Edinburgh, (1965-1985).
7. Davis PH, Mill RR, Tan Kit. Flora of Turkey and the East Aegean Islands. Vol. 10, Edinburgh University Press, Edinburgh, (1988).

8. Güner A, Özhatay N, Ekim T, Başer KHC. Flora of Turkey and the East Aegean Islands. Vol. **11**, Edinburgh University Press, Edinburg, (2000).
9. Kültür Ş. An ethnobotanical study from Kırklareli province (Turkey), Sci. Res. Found Univer. Istanbul. Project no. 1646, İstanbul (2004).
10. Kültür Ş. Medicinal plants used in Kırklareli province (Turkey). *Journal of Ethnopharmacology* vol. 111: 341-364 (2007).
11. Kültür Ş. An ethnobotanical study of Kırklareli (Turkey). *Phytologia Balcanica* **14(2)**: 279-289 (2008).
12. Akalın E, Alpınar K. Tekirdağ'ın tıbbi ve yenen yabancı bitkileri hakkında bir araştırma. *Ege Üniversitesi Eczacılık Fak. Derg.* **2**:1-11 (1994).
13. Ecevit Genç G, Özhatay N. An ethnobotanical study in Çatalca (European Part of Istanbul ) II. *Turkish J. Pharm. Sci.* **3(2)**: 73-89 (2006).
14. Alparslan D.F. Babaeski (Kırklareli) Yöresinin Geleneksel Halk İlacı olarak Kullanılan Bitkileri, Marmara Üniversitesi Sağlık Bilimleri Enstitüsü, Yüksek Lisans Tezi, (Danışman: Prof.Dr. Ertan Tuzlacı), İstanbul (2003).
15. Tuzlacı E, Alparslan DF. Turkish folk medicinal plants part V: Babaeski (Kırklareli). *J. Fac. Pharm Istanbul*, **39**: 11-23 (2007).
16. Tuzlacı E, Alparslan İşbilen DF, Bulut G. Turkish folk medicinal plants, VIII: Lalapaşa (Edirne). *Marmara Pharm J.* **14**: 47-52 (2010).