

MEDICINAL PLANTS USED IN ISPERİH (RAZGRAD-BULGARIA) DISTRICT

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Abstract

This paper reports the results of an ethnobotanical survey of medicinal plants used in Ispereh district (Razgrad-Bulgaria). Sixty-eight plant species belonging to 32 families, 62 genera and among them 44 species were wild and 24 species were cultivated plants. Most used families were Labiatae, Rosaceae, Compositae and the most used plants were Achillea millefolium subsp. pannonica, Hypericum perforatum, Pinus sylvestris, Urtica dioica, Plantago major, Calendula officinalis, Plantago lanceolata, Melissa officinalis, Robinia pseudoacacia, Armoracia rusticana, Geranium macrorrhizum, Malva sylvestris. A total of 62 medicinal uses were obtained. 180 vernacular names of medicinal plants were reported. Ailments such as hypertension, cold and influenza, stomach diseases and wounds are mostly treated with the medicinal plants.

Key words: Medicinal plants, Ispereh, Razgrad, Bulgaria

İspereh İlçesinde (Razgrad-Bulgaristan) Kullanılan Tıbbi Bitkiler

Bu çalışmada, Bulgaristan'nın İspereh ilçesinde yapılan etnobotanik bir araştırma sonucu belirlenen tıbbi bitkiler verilmiştir. 32 familya ve 62 cins'e ait ve de 24 türü kültür bitkisi 44 türü ise doğal bitkiler olmak üzere toplam 68 tür saptanmıştır. En çok kullanıldığı olan familyalar Labiatae, Rosaceae, Compositae olup ve en çok kullanılan türler ise Achillea millefolium subsp. pannonica, Hypericum perforatum, Pinus sylvestris, Urtica dioica, Plantago major, Calendula officinalis, Plantago lanceolata, Melissa officinalis, Robinia pseudoacacia, Armoracia rusticana, Geranium macrorrhizum, Malva sylvestris'dir. Bu bitkilere ait 62 tıbbi kullanış ve 180 yöresel isim saptanmıştır. Tıbbi bitkilerin en çok yüksek tansiyon, soğuk algınlığı ve gribal enfeksiyonlarda, mide hastalıkları ve yaraların iyileştirilmesinde kullanıldıkları görülmüştür.

Anahtar kelimeler: Tıbbi bitkiler, İspereh, Razgrad, Bulgaristan

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INTRODUCTION

Bulgaria is situated in the Balkan peninsula, South East Europe, between 22° 21' 40" and 28° 36' 35" E longitude, and 41° 14' 05" and 44° 12' 45" N latitude, occupies the area of 110 912 km² with elevations ranging from 0 to 2925 m and has corresponding subalpine, Mediterranean and continental climates (Fig. 1).

The Bulgarian flora is remarkable for its diversity with 3896 plant species and 600 of them are known as medicinal plants. The use of drugs prepared from medicinal plants in Bulgarian traditional medicine dates from centuries ago (1).

Ispirih district is located 43°71'7"N, 26°83'3"E (elevation 230-305 m) in the northeastern Bulgaria, part of Razgrad Province and situated in the central part of the Ludogorie region and covers an area of 402 km² (Fig.1, 2). The average annual rainfall of the district is 656 mm, annual average temperature of 10.3 °C. Rainy season extends from the month of November to April. Winter lasts about 3 months, spring and autumn are rainy and the summer is hot (2).

The total population of the district according to 2005 census is 25 143 inhabitants. Majority of the rural people in the district are cultivators and agricultural workers (2).

The study aims at identifying and documenting the plants used as medicinal purposes before losing by local people of Ispirih region. Also there has been no previously published study about the ethnobotanical and medicinal plants used by villagers of Ispirih district.

The traditional uses of medicinal plants of this district have very meagre reports in the literature (3, 4, 5, 6). We have not come across any work in this district about medicinal plants in the literature.



Figure 1. The map of Bulgaria

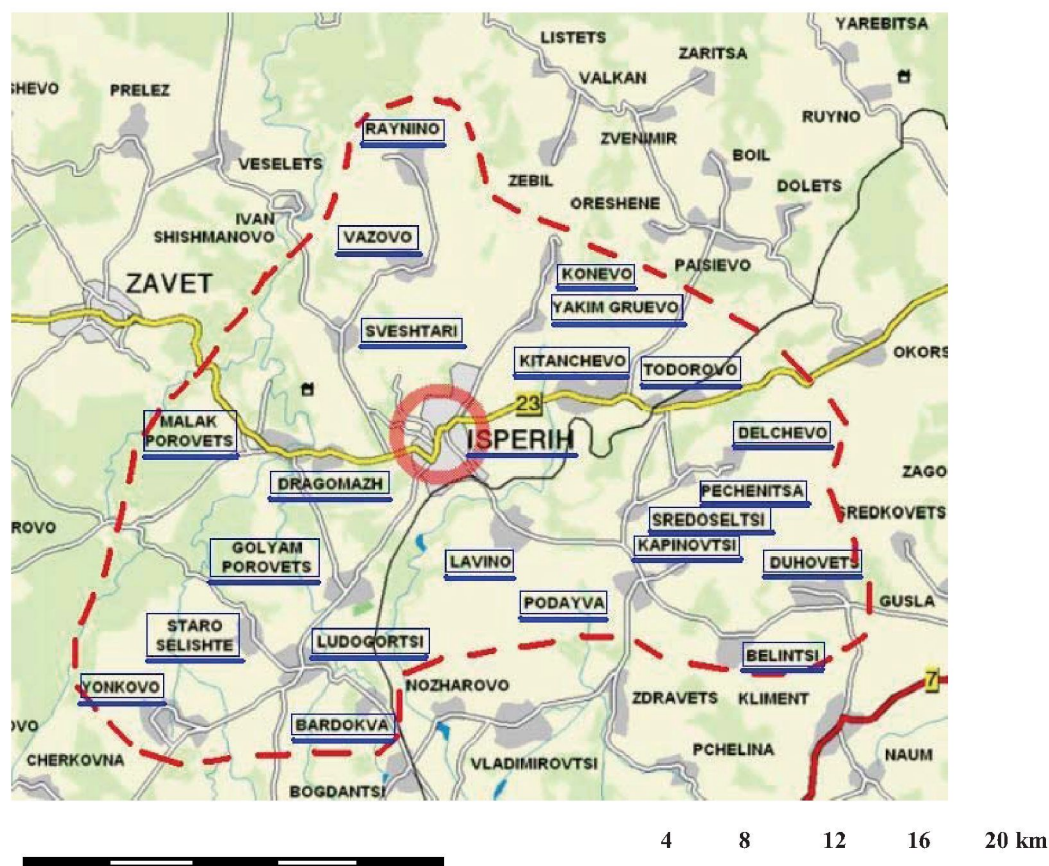


Figure 2. The map of Ispirih district showing the studied villages

EXPERIMENTAL

An ethnobotanical survey of the Ispirih district was conducted during June 2005 to July 2006. The information including the various data such as local names, part of the used plants, ailments and preparation methods were obtained by mean of direct interviews with healers and peasants who know practice about the herbal medicine. Efforts were made to double check any information by asking the opinion of people in neighbouring villages to verify the accuracy. During the field studies, the plant specimens were collected together with accompanied informants. All settlements (23, including 1 centre and 22 villages) were visited in different seasons of the year (Fig. 2). The collected plant specimens were numbered and taxonomically identified according to 'Flora of Turkey and the East Aegean Islands'(7, 8, 9) 'Flora na Republika Bulgaria' (10, 11, 12) and 'Flora Italiana Illustrata'(13). A voucher specimens of each species was kept in ISTE (The Herbarium of Istanbul University, Faculty of Pharmacy). The some material of plant parts which are not convenient for herbarium are kept in the bottles with the number of collector SS (Semra Sami).

RESULTS AND DISCUSSION

The results of the survey are presented in Table 1. The plants are arranged in alphabetical order. For each species the following elements are provided: family, botanical name, voucher specimen number (within brackets), local names, parts used, uses/ailments treated and preparation and administration. Some of these plants are also used in multiherbal recipes containing two or three species which are represented in Table 2.

The present study includes information on 68 plant species belonging to 32 families and used to relieve various ailments (Table 1). Among them, 44 species are wild and 24 species are cultivated plants. The common dosage forms include decoction, infusion and paste. Most of the herbal remedies are taken orally. 180 vernacular names of medicinal plants were obtained. Most used families were Labiatae (9 species), Rosaceae (8 species), Compositae (7 species) and the most used plants were *Achillea millefolium* subsp. *pannonica*, *Hypericum perforatum*, *Pinus sylvestris*, *Urtica dioica*, *Plantago major*, *Calendula officinalis*, *Plantago lanceolata*, *Melissa officinalis*, *Robinia pseudoacacia*, *Armoracia rusticana*, *Geranium macrorrhizum*, *Malva sylvestris*. For treating ailments, the use of the aerial parts was higher (31 %) than the leaves (22 %), flowers (15 %), fruits (11%). The 68 medicinal plant species were used in treating 62 different types of ailments. The traditional medicinal plants have been mostly for treatment of hypertension (54 %), cold and influenza (38 %), stomach diseases (37 %) and wounds (35 %). In Ispirih district no detailed study on ethnobotany of medicinal plants was conducted before. Further scientific phytochemical, biological and clinical assessment of these medicinal plants is however greatly needed.

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Table 1. Plants used as medicinal purposes in the Iserih (Razgrad-Bulgaria) district

Family	Plant species (voucher specimen)	Local names	Parts used	Uses/Ailments treated	Preparation, administration
Amaryllidaceae	<i>Galanthus elwesii</i> Hooker fil. (ISTE 83 518, 83 522)	Akçabardak, akbardak, kokiche	Flowers	Sedative	Dried fowers waiting in raki 20 days and taken 40 drops three times a day, o.ad.
Anacardiaceae	<i>Cotinus coggyria</i> Scop. (ISTE 83 509, 83 531, 83 558)	Tetre, tetra, smradlika	Leaves Leaves Leafy shoots Leafy shoots	Wounds Eczema Hemorrhoids, Gynecological disorders	Infusion, ext. Decoction, ext. Decoction, ext. Decoction, ext.
Apocynaceae	■ <i>Vinca major</i> L. subsp. <i>major</i> (ISTE 83 532)	Zimzelen, zelenika, edar zimzelen	Aerial parts	Antihypertensive	Infusion, o.ad.
Apocynaceae	■ <i>Vinca minor</i> L. (ISTE 83 525)	Dreben zimzelen	Leaves	Antihypertensive	Infusion, o.ad.
Araceae	<i>Arum maculatum</i> L. (ISTE 83 526, 83 567)	Zmiyska hurka	Tubers	Hemorrhoids	Cutting into little pieces, o.ad.
Araliaceae	<i>Hedera helix</i> L. (ISTE 83 533)	Sarmaşik, brashljan	Aerial parts	Cough, expectorant	Infusion, o.ad.
Aristolochiaceae	<i>Aristolochia clematitis</i> L. (ISTE 83 534)	Kurt elmasi, vulcha jabulka	Whole plant Whole plant Whole plant	Diuretic, Cold, flu, Wounds	Decoction, o.ad. Decoction, o.ad. Infusion, ext.
Betulaceae	<i>Betula pendula</i> Roth. (ISTE 83 537).	Breza, bjala breza	Barks Leaves Leaves	Rheumatism Diuretic Kidney stones	Poultice, ext. Infusion, o.ad. Infusion, o.ad.

Caprifoliaceae	<i>Sambucus ebulus</i> L. (ISTE 83 571)	Bız, biyzgan, piyran, bazak	Mature fruits Mature fruits Mature fruits Flowers	Stomach ache,gastric ulcer Hemorrhoids Cardiac diseases Cough, expectorant	Marmelade, o.ad. Decoction, ext. Syrup, o.ad. Decoction, o.ad.
Caprifoliaceae	<i>Sambucus nigra</i> L. (ISTE 83 497)	Mülüver, bizi, svirchovina	Flowers	Mouth wounds, hemostatic, gingivitis Cuts, wounds, burns Stomache disease, appetizer, dyspepsia, hemorrhoids, diuretic, gynecological disorders, kidney disorders	Decoction, ext. applied as a gargle Oleat, ext. Infusion, o.ad.
Compositae	<i>Achillea millefolium</i> L. subsp. <i>pannonica</i> (Scheele) Hayek (ISTE 83 488)	Bjal ravnetz	Flowers Flowers Flowers		
Compositae	<i>Artemisia absinthium</i> L. (ISTE 83 506)	Pelin otu, pelin, bjal pelin	Aerial parts Aerial parts	Appetizer, dyspepsia, To take away bad breath of mouth Cough	Infusion, o.ad. Infusion, ext. as a gargle four times a day Infusion, o.ad.
Compositae	<i>Bellis perennis</i> L. (ISTE 83 536)	Koyun gözü, parichka	Capitulum		

Compositae	■ <i>Calendula officinalis</i> L. (ISTE 83 569)	Neven, kalendula	Capitulum Capitulum Capitulum Capitulum Capitulum Capitulum	Eczema, wounds Wounds, burns Waist ache Gingivitis Gastric ulcer Stomach disease	Dried flowers mixed with lanoline and vaseline applied as salve, ext. Dried flowers mixed with vaseline or olive oil applied as salve, ext. Dried flowers mixed with pork fat applied as salve, ext. Dried flowers waiting in alcohol 2 weeks and applied as gargle, ext. Dried flowers waiting in alcohol 2 weeks and taken 35 drops three times a day, o. ad. Infusion, o.ad. drink one teacup three times a day, before meal
Compositae	<i>Cichorium intybus</i> L. (ISTE 83 561)	Sinja jlachka	Aerial parts	Stomach disease	Decoction, o. ad. taken before breakfast
Compositae	<i>Lactuca serriola</i> L. (ISTE 83 480)	Sütleşen, mlechka	Latex	Hemostatic,	Ext.
Compositae	<i>Matricaria chamomilla</i> L. var. <i>recutita</i> (L.) Grierson (ISTE 83 492)	Pire otu, papatyá, lajka	Capitulum Capitulum Capitulum	Cold, flu, Urinary diseases Sore throat, toothache Acne	Infusion, o.ad. Infusion, o.ad. Infusion, ext. as a gargle Infusion, ext.
Cornaceae	<i>Cornus mas</i> L. (ISTE 83 523)	Kızılcık, drjan	Fruits Fruits	Diarrhea Diarrhea	Fresh fruits taken before breakfast, o. ad. Compote or jam prepared from mature fruits, o.ad.

Cruciferae	■ <i>Armoracia rusticana</i> (Lam.) P. Gaertn (ISTE 83 544)	Hırjan, acı kök	Roots Roots Roots Roots	Appetizer Antihypertensive Waist and back ache Toothache	Fresh plained roots+water, taken one spoonful three times a day before meal, o.ad. Decoction, o. ad Fresh plained roots wrapped with a cloth, ext. Fresh plained roots+water, applied as gargle, ext.
Cruciferae	<i>Capsella bursa-pastoris</i> (L.) Medic. (ISTE 83 514)	Çoban çantası, ovcharska torbichka	Aerial parts Aerial parts	Diuretic, Haemostatic (for uterus bleeding)	Infusion, o. ad. Infusion, o. ad.
Cucurbitaceae	<i>Ecballium elaterium</i> (L.) A. Rich. (ISTE 83 573)	Acı kavun, morska krastavitz	Fruits juice Fruits juice	Sinusitis Cold	Snuffing, dropped into the nostrils 1 drop Snuffing, dropped into the nostrils 1 drop
Gentianaceae	<i>Centaurium erythraea</i> Rafn subsp. <i>erythraea</i> var. <i>erythraea</i> (ISTE 83 485)	Cherven kantaron, kırmızı kantaron	Aerial parts Aerial parts	Appetizer Dyspepsia	Infusion, o.ad. Infusion, o.ad.
Geraniaceae	■ <i>Geranium macrorrhizum</i> L. (ISTE 83 540)	Sakız çiçeği, zdravetz	Aerial parts Leaves Fresh leaves Aerial parts Aerial parts	Antihypertensive Warts Inflamed wounds Wounds Eczema	Infusion, o.ad., drink one teacup three times a day before meal Poultice, ext. Wrapping, ext. Decoction, ext. Decoction, ext.
Gramineae	<i>Cynodon dactylon</i> (L.) Pers. (ISTE 83 477, 83 495)	Ayrık otu, troskot	Roots Roots	Kidney stones Diuretic	Decoction, o.ad. drink one teacup once a day, before breakfast
Gramineae	■ <i>Zea mays</i> L. (SS 0660)	Misir, tzarevitza, kukuruz	Corn tassel Corn tassel	Kidney stones Diuretic	Infusion, o.ad. Infusion, o.ad.

Guttiferae	<i>Hypericum perforatum</i> L. (ISTE 83 508)	Sari kantaron otu, jalt kantaron	Aerial parts Aerial parts Aerial parts Aerial parts Aerial parts Aerial parts	Urinary diseases Stomache disease, gastric ulcer Gingivitis, otitis Hemorrhoids Cardiac diseases Wounds, Rheumatism	Infusion, o.ad. drink one teacup three times a day before meal Infusion, o.ad. drink one teacup 2-3 times a day before meal Infusion, o.ad. drink one teacup three times a day before meal Decoction, o.ad. Decoction, o.ad. Salve, ext.
Hippocastanaceae	■ <i>Aesculus hippocastanum</i> L. (ISTE 83 541)	Kestane, ketsen, konski ketsen.	Seeds Seeds	Rheumatism Hemorrhoids	Powdered 15-20 seeds of plant waiting in % 95 ethanol 15 days, ext. Powdered seeds waiting in raki 30 days, ext. Crushed, ext.
Juglandaceae	■ <i>Juglans regia</i> L. (ISTE 83 542)	Ceviz, oreh	Fresh leaves Leaves Leaves Seeds	Varicosity Gynecological disorders Hemorrhoids Appetizer	Decoction, ext. Decoction, ext. Eaten+honey 1-2 spoonfuls before breakfast
Labiatae	■ <i>Melissa officinalis</i> L. subsp. <i>officinalis</i> (ISTE 83 505)	Ogul otu, matochina, limonche	Leaves Leaves Flowering branches Aerial parts Aerial parts Aerial parts	Sedative Insomnia Migraine Antihypertensive Appetizer Dyspepsia	Infusion, o.ad., drink one teacup 2-3 times a day Infusion, o.ad., drink one teacup a day before sleeping Decoction, o.ad.
Labiatae	■ <i>Mentha x piperita</i> L. (ISTE 83 490)	Kara nane, nane, djodjen	Leaves Leaves Leaves Fresh leaves	Carminative Stomachic Insomnia To take away bad breath of mouth	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Chewing

Labiatae	<i>Mentha spicata</i> L. subsp. <i>spicata</i> (ISTE 83 507)	Deli nane, nane, menta	Aerial parts Aerial parts Fresh leaves	Carminative Stomachic To take away bad breath of mouth	Infusion, o.ad. Infusion, o.ad. Chewing
Labiatae	■ <i>Ocimum basilicum</i> L. (ISTE 83 500)	Feslen, fesleğen, bosilek.	Aerial parts	Sedative	Infusion, o.ad. drink one teacup a day before sleeping
Labiatae	<i>Origanum vulgare</i> L. subsp. <i>vulgare</i> var. <i>vulgare</i> (ISTE 83 484)	Rigan.	Aerial parts Aerial parts Aerial parts Aerial parts	Cold Expectorant Antitussive Sedative	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. drink one teacup a day before sleeping
Labiatae	<i>Salvia sclarea</i> L. (ISTE 83 496)	Salvia, muskusna salvia	Aerial parts	Cold, flu	Infusion, o.ad.
Labiatae	■ <i>Satureja hortensis</i> L. (ISTE 83 510)	Cibrika, tavuk otu, chubritza	Aerial parts	Antihypertensive	Infusion, o.ad., drink one teacup three times a day before meal
Labiatae	<i>Stachys leucoglossa</i> Griseb. (ISTE 83 543)	Ranilist	Aerial parts Aerial parts	Breast cancer Uterus cancer	Infusion, o.ad. Infusion, o.ad.
Labiatae	<i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> var. <i>subisophyllus</i> (Borbás) Jalas (ISTE 83 494)	Keklik, kekik, mashterka	Aerial parts Aerial parts Aerial parts Aerial parts	Cold, flu Antitussive Expectorant Stomachic	Infusion, o.ad. Decoction, o.ad. Decoction, o.ad. Decoction, o.ad.
Leguminosae	<i>Melilotus officinalis</i> (L.) Desr. (ISTE 83 491)	Jalta komuniga, lechebna komuniga	Aerial parts Aerial parts Aerial parts	Insomnia Menstrual ache Galactagog	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad., drink one teacup three times a day after meal

Leguminosae	<p>■ <i>Robinia pseudoacacia</i> L. (ISTE 83 538)</p>	Kral ağacı, akasya, bjala akatzia	Flowers Flowers Flowers Flowers Flowers	Antitussive Expectorant Antipyretic Cold, flu Diuretic	<p>Infusion, o.ad., drink one teacup three times a day Infusion, o.ad., drink one teacup three times a day Infusion, o.ad. Infusion, o.ad. Infusion, o.ad.</p>
Leguminosae	<p>■ <i>Trigonella foenum-graecum</i> L. (ISTE 83 478)</p>	Poy, böber otu, sminduh	Seeds	Appetizer	<p>Infusion o.ad., drink one teacup three times a day before meal</p>
Liliaceae	<p>■ <i>Allium cepa</i> L. (SS 0661)</p>	Suvan, luk, kromid luk	Bulbus Bulbus	Warts Pustule	<p>Cutting bulbus waiting in vinegar 2 days, ext.</p>
Liliaceae	<p>■ <i>Allium sativum</i> L. (SS 0662)</p>	Samsak, sarimsak, sarimsak, chesan, chesnov luk	Bulbils Bulbils	Antihypertensive Cold, flu	<p>Fresh eaten, o.ad. Fresh eaten, o.ad.</p>
Liliaceae	<p><i>Asparagus tenuifolius</i> Lam. (ISTE 83 535)</p>	Tavşan gölgesi, zäjche sjanka	Roots	Antihypertensive	<p>Infusion, o.ad.</p>
Liliaceae	<p><i>Convallaria majalis</i> L. (ISTE 83 528)</p>	Momina sulza	Leaves	Cardiac disease	<p>Infusion, o.ad., drink one teacup three times a day after meal</p>
Liliaceae	<p><i>Polygonatum officinale</i> All. var. <i>officinale</i> (ISTE 83 529)</p>	Momkova sulza	Roots Roots	Haemostatic Wounds	<p>Infusion, o.ad. Poultice, ext.</p>
Loranthaceae	<p><i>Viscum album</i> L. subsp. <i>album</i> (ISTE 83 511)</p>	Bjal imel	Leaves Leaves	Antihypertensive Diabetes	<p>Infusion, o.ad. Decoction, o.ad., drink one teacup once a day before breakfast</p>
Malvaceae	<p><i>Malva sylvestris</i> L. (ISTE 83 489)</p>	Ebegömeçi, slez	Aerial parts Aerial parts Aerial parts Aerial parts Aerial parts	Galactagog Antitussive Expectorant Diuretic Sore throat	<p>Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Decoction, ext., as a gargle</p>

Oleaceae	<i>Syringa vulgaris</i> L. (ISTE 83 546)	Ergüven, ljujgak	Leaves	Appetizer	Infusion, o.ad., drink one teacup three times a day before meal Infusion, o.ad.
Pinaceae	■ <i>Pinus nigra</i> Am. (ISTE 83 547)	Çam, kara çam, cheren bor	Young sterile shoots	Antipyretic Expectorant	Infusion, o.ad.
Pinaceae	■ <i>Pinus sylvestris</i> L. (ISTE 83 548)	Kızıl çam, sarı çam, bjal bor, cherven bor	Young sterile shoots Young sterile shoots Young sterile shoots Young sterile shoots Young sterile shoots Young sterile shoots Young sterile shoots Resine Young sterile shoots+young cones	Expectorant Kidney stones Bronchitis Diuretic Cold, flu Expectorant Wounds Tonic	Infusion, o.ad. Infusion, o.ad. Decoction, o.ad., Infusion, o.ad. Decoction, o.ad., Young sterile shoots boiled in water+sugar, syrup, o.ad. Resine+pork fat applied as salve, ext. Syrup, o.ad.
Plantaginaceae	<i>Plantago lanceolata</i> L. (ISTE 83 498)	Sinir otu, tesnolist jivovlek, jivovlek	Leaves Leaves Leaves Fresh leaves Fresh leaves Fresh leaves	Diuretic Expectorant Kidney disease Pustule Wounds Insectbites	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Crushed, ext. Crushed, ext. Crushed, ext.

Plantaginaceae	<i>Plantago major</i> L. subsp. <i>major</i> (ISTE 83 499)	Sinir otu, shirokolisten jivovlek	Leaves Leaves Leaves Leaves Leaves Fresh leaves Fresh leaves	Gastric ulcer Diuretic Kidney disease Bronchitis Expectorant Wounds Warts	Infusion, o.ad., drink one teacup three times a day before meal Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Crushed, ext. Crushed, ext.
Rosaceae	<i>Agrimonia eupatoria</i> L. subsp. <i>eupatoria</i> var. <i>eupatoria</i> (ISTE 83 487)	Kamshiche, lecheben kamshik	Aerial parts Aerial parts	Diuretic Pharyngitis	Infusion, o.ad. Infusion, o.ad.
Rosaceae	<i>Crataegus monogyna</i> Jaep. subsp. <i>monogyna</i> (ISTE 83 512, 83 554)	Yemisken, yemisgen, cherven glog, glog	Flowers Flowers	Cardiotonic Cardiac diseases	Infusion, o.ad. Decoction, o.ad., drink one teacup three times a day before meal Decoction, o.ad. Decoction, o.ad.
Rosaceae	■ <i>Cydonia oblonga</i> Mill. var. <i>oblonga</i> (ISTE 83 530)	Ayva, djulja	Fruits Fruits Leaves Leaves Fruits	Diuretic Antihypertensive Cold, flu Antitussive Diarrhea	Infusion, o.ad. Infusion, o.ad. Eaten, o.ad.
Rosaceae	<i>Fragaria viridis</i> Duchesne (ISTE 83 555)	Deli çilek, gorska jagoda, planitza	Leaves Leaves	Kidney stones Antihypertensive	Infusion, o.ad., drink one teacup three times a day before meal Infusion, o.ad., drink one teacup three times a day before meal
Rosaceae	<i>Potentilla argentea</i> L. var. <i>tenuiloba</i> (Jordan) Schwarz (ISTE 83 493, 83 556)	Ochiboletz	Roots Roots Roots	Stomach ache Enteritis Sterility (woman)	Infusion, o.ad., drink one teacup three times a day before meal Infusion, o.ad., drink one teacup three times a day before meal Infusion, o.ad., drink one teacup three times a day before meal

Rosaceae	<i>Prunus spinosa</i> L. var. <i>dasyphylla</i> Schur (ISTE 83 524)	Güvem, güven tikeni, tranka	Fresh fruits Fresh fruits Fruits	Depurative Diarrhea Diabetes	Syrup, o.ad. Eaten, o.ad. Decoction, o.ad., drink one teacup three times a day before meal Decoction, o.ad.
Rosaceae	<i>Rosa canina</i> L. (ISTE 83 553)	Gül bubusu, shipka	Fruits	Kidney diseases	Decoction, o.ad., drink one teacup three times a day before meal Decoction, o.ad. Decoction, o.ad. Decoction, o.ad.
Rosaceae	<i>Rubus discolor</i> Weihe & Nees. (ISTE 83 502)	Karamık, karamuk, kapina	Fruits	Diabetic	Infusion, o.ad., drink one teacup once a day before breakfast
Rubiaceae	<i>Galium verum</i> L. (ISTE 83 486)	Enjovche	Aerial parts	Diuretic	Infusion, o.ad.
Tiliaceae	■ <i>Tilia tomentosa</i> Moench (ISTE 83 552)	Olambır, olambur, ıhlambır, lipa.	Flowers Flowers Flowers	Cold, influenza Antitussive Expectorant	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad.
Umbelliferae	■ <i>Anethum</i> <i>graveolens</i> L. (ISTE 83 483)	Kopar	Aerial parts Aerial parts Seeds Seeds	Carminative Galactagog Carminative Stomachic	Infusion, o.ad. Infusion, o.ad. Infusion, o.ad. Infusion, o.ad.
Umbelliferae	<i>Eryngium campestre</i> L. (ISTE 83 562)	Vetrogon	Aerial parts	Eczema	Decoction, ext.
Umbelliferae	■ <i>Levisticum</i> <i>officinale</i> Koch. (ISTE 83 503)	Lüşten, İjushjan, selim	Roots	Diuretic	Decoction, o.ad.

Urticaceae	<i>Urtica dioica</i> L. (ISTE 83 481)	Sırgan, ısrgan, sigan, kopriva, kupriva	Aerial parts Aerial parts Aerial parts Aerial parts Aerial parts Aerial parts Leaves+roots Leaves+roots	Bronchitis Stomachic Anaemia Diuretic Diabetes Galactagog Rheumatism Rheumatism Hair care	Decoction, o.ad. Infusion, o.ad. Decoction, o.ad. Decoction, o.ad. Infusion, o.ad. Infusion, o.ad. Fresh, ext. wrapping Decoction, o.ad. Decoction, ext.
Violaceae	■ <i>Viola tricolor</i> L. (ISTE 83 550)	Menekşe, menevşe, tritzvetna temenuga	Aerial parts Aerial parts	Expectorant Diuretic	Infusion, o.ad. Infusion, o.ad.
Vitaceae	■ <i>Vitis vinifera</i> L. subsp. <i>vinifera</i> (ISTE 83 549)	Üzüm, asma, bağ, loza, grozde	Fruits Fruits Fruits Fruits	Diarrhea Anaemia Cardiac diseases Varicosity	Eaten, o.ad. Eaten, o.ad. Eaten, o.ad. Eaten, o.ad.

O.ad., oral administration; Ext., external use

■ Cultivated plant

Table 2. Multiherbal recipes used as medicinal purposes in the Ispirih (Razgrad-Bulgaria) district

Scientific name	Used parts	Uses	Preparation, administration
■ <i>Pinus sylvestris</i> <i>Hypericum perforatum</i> <i>Origanum vulgare</i> subsp. <i>vulgare</i> var. <i>vulgare</i>	Young shoots Aerial parts Aerial parts	Cold, flu	Infusion, o.ad.
<i>Sambucus nigra</i> <i>Rosa canina</i> <i>Mentha spicata</i> subsp. <i>spicata</i>	Flowers Fruits Aerial parts	Expectorant	Decoction, o.ad.
<i>Achillea millefolium</i> <i>Mentha spicata</i> subsp. <i>spicata</i> <i>Centaurium erythraea</i> subsp. <i>erythraea</i> var. <i>erythraea</i>	Capitulum Aerial parts Aerial parts	Stomach diseases	Decoction, o.ad.
<i>Rosa canina</i> <i>Tilia argentea</i>	Fruits Flowers	Cold, flu	Decoction, o.ad.
<i>Cynodon dactylon</i> ■ <i>Zea mays</i>	Roots Corn tassel	Diuretic, urinary diseases	Decoction, o.ad.
<i>Hypericum perforatum</i> <i>Rosa canina</i> <i>Sambucus nigra</i>	Aerial parts Fruits Flowers	Cold, flu	Decoction, o.ad.
■ <i>Hordeum vulgare</i> <i>Nigella sativa</i> ■ <i>Pinus nigra</i>	Fruits Fruits Resine	Diabetes	Decoction, o.ad. drink one teacup once a day before breakfast
<i>Melisa officinalis</i> subsp. <i>officinalis</i> <i>Mentha spicata</i> subsp. <i>spicata</i> <i>Thymus longicaulis</i> subsp. <i>longicaulis</i> var. <i>subisophyllus</i>	Leaves Aerial parts Aerial parts	Sedative	Infusion, o.ad.

O.ad., oral administration; Ext., external use

■ Cultivated plant

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