SOME MEDICINAL PLANTS SOLD IN OSMANİYE HERBALS AND THEIR USAGE AREAS

Ayşegül KARAGÖZ[1] – Hüsniye Aka SAĞLIKER[2]
[1]MsC, Faculty of Engineering and Natural Sciences, Osmaniye Korkut Ata University, Department of Biology, Osmaniye, TÜRKİYE, aysegulfurucu@hotmail.com
[2] Prof. Dr., , University of Osmaniye Korkut Ata, Faculty of Engineering and Natural Sciences, , Department of Biology, Osmaniye, TÜRKİYE, hasagliker@osmaniye.edu.tr
https://doi.org/10.71066/FTTMK.1.04

Abstract

This research was carried out by face-to-face interviews using survey forms with 10 herbalists in Osmaniye city center, Kadirli and Düziçi districts between 2023-2024. The aim of the study was to determine the plants sold in herbalists in the central districts of Osmaniye province, the parts of these plants used and the drugs obtained, and the purposes and ways of using these plants by the people. An attempt was made to determine the knowledge of herbalists about how they procure plants, sale and purchase of plants, storage conditions of plants and their legal obligations. The use of known plants for different purposes or in different ways was questioned in interviews with herbalists. As a result of the surveys, it was determined that herbalists in the research area sold 86 plants belonging to 46 families for various purposes.

Key Words: Herbalist, Plant Sales, Ethnobotany, Medicinal Plants, Osmaniye

Introduction

Humanity's acquaintance with plants began with their existence. Ethnobotany is a branch of science between ethnology and botany, which examines human culture. It is a science that aims to document the relationship between people and plants, how plants affect culture, and this changing accumulation of knowledge. Ethnobotany, which includes both natural and cultivated plant species, is based on observation, relationship, need, and traditional knowledge methods. New inventions, skills, and methods are added to this knowledge, which is acquired through experience and undergoes change. Ethnobotanists try to reveal the purposes and how plants have been used in various cultures from past to present, their cultural meanings, and their relationships with beliefs (Kendir and Güvenç, 2010; Bodnár & Csabai, 2019; Kolesnyk et al., 2025a).

Anatolia, where many civilizations have lived from ancient times to the present day, has a rich flora due to its climate and geographical conditions. Anatolia has a wide range of medical knowledge with both its historical past and accumulation and its plant diversity (Hacıoğlu, 2005; Kıran, 2006). The plants and their areas of use in the medical works that have survived from the people who lived in Anatolia have common characteristics with today's traditional medical understanding (Bellikci, 2011).

According to recent studies, the number of plants on earth is between 250,000-500,000 (Ersöz, 2012). According to WHO records, a large portion of people today (70-80%) use “traditional medicine” for treatment or protection. It is said that there are approximately 70,000 types of medicinal plants used for this purpose. Approximately 21,000 plant species have been used for treatment (Başaran, 2012). The use of medicinal plants in treating diseases has recently been expressed under the names of “alternative medicine”, “traditional medicine” or “complementary medicine”. At the same time, names such as natural medicine, folk medicine, interactive medicine, folkloric medicine, holistic medicine, and supportive medicine are also used for the same purpose in different geographies (Ersöz, 2012).

The word “taker” used for tradesmen who provide the materials needed for medicine production is derived from the Arabic word “akarir”, meaning drugs or medical substances. During the Seljuk and Ottoman periods, herbalists, also known as “Akkar” or “Attar”, sold herbal drugs as well as animal and mineral drugs. As a result of many years of experience, herbalists, one of the most important cornerstones of folk medicine from the past to the present, have lost their importance and have become institutions that only provide medicinal plants and spices to the public (Sargın et al., 2013). Despite all these developments, the fact that there are businesses called “spice shops” or “herbalists’ shops” in almost every residential area and that a portion of the public goes to these places for treatment purposes and buys plants is considered an indication that people continue to prepare their own medicine in their own kitchens (Sarışen and Çalışkan, 2005). In addition, the increasing number of herbalists in direct proportion to the increasing interest in herbal treatment in the written and visual media today also reveals the public's interest in this field. People use the drugs they buy from herbalists, either individually or in mixtures, without questioning them, thinking that they are completely natural or harmless (Tulukçu and Sağdıç, 2011). Contrary to popular belief, since medicinal plants can have side effects that can endanger human health, treatment with medicinal plants is too important a subject to be left to spice shops. Since herbal drugs contain different active ingredients in various parts of the plant, people interested in plants need to have some basic information about plant morphology and anatomy. How effective a medicinal plant turns out to be often depends not just on the species itself, but also on the way and place it’s gathered. Soil, local climate, and even the time of harvest can all affect how much of the active compounds the plant will actually contain (Kolesnyk et al., 2025b). It should never be forgotten that not knowing well which method, which plants and in what proportions the drug to be used can cause negativities that can even result in death (Bulut et al., 2017). For this reason, the integration of modern scientific methods is essential—not only for safety, but also for mapping the plant’s complete phytochemical profile and linking it to traditional knowledge (Csabai et al., 2024).

The areas where ethnobotany science is used, which is considered a value among the rich cultural heritage of our country, recording the relevant plants and transferring this knowledge to future generations are very important responsibilities. Young generations are far from this information due to many reasons such as migration from rural to urban areas, modernization, development of transportation vehicles, easy access to health services. This cultural knowledge that cannot be reached and used is in danger of being lost by being erased from the memory of the society. The importance of comprehensive scientific research in order to document, record and protect this information has been partially perceived and emphasized (Kendir and Güvenç, 2010). In this context, studies have gained momentum today and information on which parts of the plants collected and named from the field are used, for what purpose and how, and how they are prepared and applied has been collected from the local people (Kendir and Güvenç, 2010; Gelse, 2012; Demirci Kayıran, 2019; Keskinbaş and Aka Sağlıker, 2023; Keskinbaş and Aka Sağlıker, 2024).

There are some studies that reveal the drugs found in herbalists, their preparation and usage methods (Sürmeli et al., 2000; Kıran, 2006; Metin, 2009; Demirci and Özhatay, 2012). Since the information obtained in these studies is based on the region where the herbalists are located, there may be uncertainties about whether the use of the plants belongs to folk medicine, whether a new usage form has been given by the herbalist, or the origin of the plants that may be folk medicine (Bayramoğlu, 2007; Vehbi, 2014; Koca, 2016).

This study aims to reveal the plants sold in herbalists in the central district of Osmaniye province, Kadirli and Düziçi districts, which parts of these plants are used for which purposes, their usage methods, herbal mixtures, if any, and the demographic characteristics of herbalists. It was also attempted to evaluate how herbalists acquired their knowledge about their profession, where they obtained the plants and whether they processed their products. This research is the first study conducted in Osmaniye, which is important in terms of ethnobotany.

Materials and methods

This study was carried out in Osmaniye city center and Kadirli and Düziçi districts depending on population density between 2023-2024 years. Within the scope of the research, herbalists and spice shops selling medicinal plants were visited and medicinal plants and their intended uses were recorded. The study aimed to interview 15 herbalists, but 10 of them agreed to participate in the survey and take photographs. Information on plants used for treatment purposes was obtained from the herbalists visited and the people working there. Permissions were obtained from the people who participated in the survey to use the information. One of the herbalists who participated in the survey was female and nine were male. Five of the herbalists stated that they acquired their knowledge through their own personal curiosity and five through the master-apprentice relationship. In addition, one of the herbalists reported that they received training on medicinal aromatic plants. In the face-to-face interviews, questions were asked according to the previously prepared questionnaire form and their answers were noted. In addition to questions aimed at determining the medicinal plants sold to the herbalists and for what purposes they were used, they were also asked whether they prepared herbal mixtures. Among the questions asked were where the information was obtained and whether the scientific names of the plants were known in addition to their local names. Questions asked to herbalists are listed below (Table 1).

Table 1. Survey questions applied to herbalists

No	Survey questions
1	Can you list the 10 plant species you sell the most, starting from the most?
2	What are the reasons why customers buy plants? (Health, beauty, religious beliefs, etc.)
3	For which diseases do your customers buy which plants?
4	Do you have your own herbal mixture?
5	In which seasons are the most plants sold?
6	Where/who do you buy the products, list from most to least?
7	Do you do any processing to the products you buy? (Packaged, processed, ground, etc.)
8	How do you store your products? List them according to their storage methods.
9	Who makes up the most of your customers, can you rate them as a percentage? (Female, male)
10	Do your customers come to you before going to the hospital?
11	From what sources do you learn information about plants?
12	Do you know the current legal status of the plants sold in your business?

Results

The scientific names, local names and used parts of the plants determined to be sold as a result of interviews with herbalists are listed in Table 2.

Table 2. Plants reported by herbalists and their customers (Original, 2024)

Plant family	**Taxonomic name**	**Plant part used**
Acoraceae	*Acorus calamus* L.	Root
Alliaceae	*Allium sativum* L.	Underground part
Anacardiaceae	*Pistacia lentiscus* L.	Rosin
Anacardiaceae	*Rhus coriaria* L.	Flower status
Apiaceae	*Anethum* sp. L.	Leaf
Apiaceae	*Coriandrum sativum* L.	Fruit
Apiaceae	*Cuminum cyminum* L.	Fruit
Apiaceae	*Ferula* L.	Root, seed
Apiaceae	*Foeniculum vulgare* Mill.	Fruit
Apiaceae	*Pimpinella anisum* L.	Seed
Aquifoliaceae	*Ilex paraguariensis* A. St. Hil.	Leaf
Araliaceae	*Panax ginseng* C. A. Mey.	Root
Asteraceae	*Helichrysum armenium DC.*	Flower
Asteraceae	*Achillea Millefolium* L.	Above ground part
Asteraceae	*Carduus nutans* L.	Seed
Asteraceae	*Solidago virgaurea* L.	Leaf
Asteraceae	*Cynara scolymus* L.	Leaf
Asteraceae	*Inula viscosa* (L.) Aiton	Flower, leaf
Asteraceae	*Matricaria chamomilla* L.	Above ground part
Asteraceae	*Stevia sp.*	Leaf
Boraginaceae	*Alkanna tinctoria* Tausch	Root
Brassicaceae	*Boswelia sacra* Flueck	Rosin
Brassicaceae	*Capsella bursa-pastoris* (L.) Medik.	Above ground part
Brassicaceae	*Lepidium sativum* L.	Seed
Cannabaceae	*Humulus lupulus* L.	All plant parts
Caprifoliaceae	*Viburnum opulus* L.	Fruit, leaf
Caryophyllceae	*Gypsophila arrostii* Guss.	Seed
Clusiaceae	*Hypericum perforatum* L.	Above ground part
Combretaceae	*Terminalia chebula* Retz.	Seed
Cucurbitaceae	*Momordica charantia* Descourt.	Fruit
Equisetaceae	*Equisetum arvense* L.	Above ground part
Ericaceae	*Erica arborea* L.	Leaf
Fabaceae	*Ceratonia siliqua* L.	Fruit
Fabaceae	*Glycyrrhiza glabra* L.	Seed
Fabaceae	*Lupinus albus* L.	Seed
Fabaceae	*Cassia angustifolia* Vahl.	Leaf
Gentianaceae	*Centaurium erythraea* Rafn	Above ground part
Ginkgoaceae	*Ginkgo biloba* L.	Leaf

Lamiaceae	*Lavandula angustifolia* Moench	Flower, leaf
Lamiaceae	*Lavandula stoechas* L.	Flower
Lamiaceae	*Melissa officinalis* L.	Leaf
Lamiaceae	*Mentha piperita* L.	Leaf
Lamiaceae	*Ocimum basilicum* L.	Above ground part
Lamiaceae	*Origanum onites* L.	Above ground part
Lamiaceae	*Rosmarinus officinalis* L.	Leaf
Lamiaceae	*Salvia officinalis* L.	Leaf
Lamiaceae	*Teucrium polium* L.	Above ground part
Lamiaceae	*Thymus vulgaris* L.	Leaf
Lamiaceae	*Vitex agnus castus* L.	Root
Lauraceae	*Cinnamomum aromaticum* Nees	Crust
Lauraceae	*Laurus nobilis* L.	Leaf
Lauraceae	*Persea americana* Mill.	Leaf
Linaceae	*Linum usitatissimum* L.	Root
Malvaceae	*Hibiscus sabdariffa* L.	Flower, leaf
Malvaceae	*Alcea rosea* L.	Flower
Myrtaceae	*Syzygium aromaticum* L.	Flower
Oleaceae	*Jasminum officinale* L.	Flower
Oleaceae	*Olea europaea* L.	Leaf
Onagraceae	*Epilobium sp.*	Leaf
Papaveraceae	*Fumaria officinalis* L.	Leaf
Pinaceae	*Pinus silvestris* L.	Crust
Piperaceae	*Piper nigrum* L.	Seed
Platanaceae	*Platanus orientalis* L.	Leaf
Poaceae	*Zea mays* L.	Flower
Primulaceae	*Primula vulgaris* Hill	Flower
Ramnaceae	*Rhamnus cathartica* L.	Root
Ranunculaceae	*Nigella sativa* L.	Root
Rosaceae	*Alchemilla vulgaris* L.	Leaf
Rosaceae	*Crataegus monogyna* Jacq.	Flower, fruit
Rosaceae	*Prunus avium* L.	Flower stem
Rubiaceae	*Cinchona officinalis* L.	Body shell
Rubiaceae	*Galium aparin* L.	Above ground part
Ruscaceae	*Ruscus aculeatus* L.	Root
Solanaceae	*Datura stramonium* L.	Root
Solanaceae	*Mandragora officinarum* L.	Root, fruit
Theaceae	*Camellia sinensis* (L.) Kuntze	Leaf
Theaceae	*Thea sinensis* L.	Leaf
Thymelaeaceae	*Aquilaria agallocha* Roxb.	Body
Tiliaceae	*Tilia cordata* Mill.	Leaf

Urticaceae	*Urtica dioica* L.	Leaf
Valerianaceae	*Valeriana officinalis* L.	Root
Zingiberaceae	*Alpinia officinarum* Hance	Root
Zingiberaceae	*Curcuma longa* L.	Root
Zingiberaceae	*Zingiber officinale* Roscoe	Root
Zygophyllaceae	*Peganum harmala* L.	Above ground part
Zygophyllaceae	*Tribulus terrestris* L.	Above ground part

Discussion

In this study, as a result of face-to-face interviews with a total of 10 herbalists in Osmaniye center, Kadirli and Düziçi districts between 2023-2024, 86 taxa belonging to 46 families were identified. When the distribution of taxa belonging to the 46 families recorded was examined according to their families, the Lamiaceae family was the most used family with 11 taxa (Table 3). 8 taxa from the Asteraceae, 6 taxa from the Apiaceae and 4 from the Fabaceae families were recorded (Table 3). A similar study was conducted with herbalists in Adana center and 142 taxa plant species were identified (Kayıran and Kırıcı, 2019). In a study conducted in Şanlıurfa center, the most plant species belonging to the Lamiaceae family were identified in herbalists (Ötnü and Akan, 2020). In a study conducted with Gaziantep herbalists, the most common taxa were those belonging to the Lamiaceae family, which is similar to the results of this study (Yiğit, 2014).

When the 10 most sold plants by herbalists were questioned, the top three plants were determined to be cinnamon, turmeric and ginger, respectively. The fact that these plants are also consumed as food is a factor in their being the best-selling plants. Although some of the plant varieties sold by herbalists are similar, there are also differences. St. John's wort, which is among the most sold plants, is used in the treatment of many diseases. It was determined that sesame, anise, basil, mallow and rosehip were among the top 10 plants sold by only a few herbalists.

It has been determined that customers buy plants from herbalists mostly for health and food consumption. Thyme, mint and turmeric are consumed for food purposes. Herbalists also sell herbal oils for hair and skin care. It has been determined that herbs are also bought for religious beliefs. Harmalaki herb is used as an evil eye repellent. In a study conducted in the Kilis region of Gaziantep province, it was reported that women who cannot have children are fed a paste made from harmala herb with the thought that they will get pregnant. Harmalaki herb is consumed both as incense and food for superstitions (Alptekin and Öz, 2024).

It has been observed that people buy plants from herbalists for almost all diseases. Television programs, advertisements and epidemics have increased people's tendency to herbal treatment. Plants are mostly sold for anemia, constipation, kidney diseases, upper respiratory tract infections and cholesterol disorders. St. John's wort plant is used in the treatment of many diseases such as sleep disorders, hemorrhoids, rheumatism, wound healing and burns. In similar studies, St. John's wort plant is also used as a sedative (Sağıroğlu and Aydın, 2024).

Table 3. Taxon numbers of identified families

Family number	Family name	Taxa	Family number	Familya	Taxa
1	Lamiaceae	11	**24**	Clusiaceae	1
2	Asteraceae	8	**25**	Combretaceae	1
3	Apiaceae	6	**26**	Cucurbitaceae	1
4	Fabaceae	4	**27**	Equisetaceae	1
5	Brassicaceae	3	**28**	Ericaceae	1
6	Lauraceae	3	**29**	Gentianaceae	1
7	Rosaceae	3	**30**	Ginkgoaceae	1
8	Zingiberaceae	3	**31**	Linaceae	1
9	Anacardiaceae	2	**32**	Myrtaceae	1
10	Malvaceae	2	**33**	Onagraceae	1
11	Oleaceae	2	**34**	Papaveraceae	1
12	Rubiaceae	2	**35**	Pinaceae	1
13	Solanaceae	2	**36**	Piperaceae	1
14	Theaceae	2	**37**	Platanaceae	1
15	Zygophyllaceae	2	**38**	Poaceae	1
16	Acoraceae	1	**39**	Primulaceae	1
17	Alliaceae	1	**40**	Ramnaceae	1
18	Aquifoliaceae	1	**41**	Ranunculaceae	1
19	Araliaceae	1	**42**	Ruscaceae	1
20	Boraginaceae	1	**43**	Thymelaeaceae	1
21	Cannabaceae	1	**44**	Tiliaceae	1
22	Caprifoliaceae	1	**45**	Urticaceae	1
23	Caryophyllceae	1	**46**	Valerianaceae	1

Some herbalists said that they had their own herbal mixtures. Disease and plant-based recipes were obtained from herbalists. In Osmaniye herbalists, shepherd's purse and shepherd's collapse plants are used for heart vasodilators, blood pressure lowering and heart diseases. The use of these two plants for similar reasons supports the existing literature (Yiğit, 2014). *Viburnum opulus* L., which is used for gallstones and kidney stones, was also used for the same purposes in a similar study (Kökçü et al., 2015). Udihindi oil is used for upper respiratory tract diseases in herbalists and it is seen that its sales have increased after the Covid-19 outbreak.

Since herbalists sell different products in different seasons, they said that there is not much change in their sales during the year. It has been seen that in addition to medicinal plants, products such as tomato paste, tea, spices and legumes are also sold in herbalists. It has been observed that the reason why sales are partly higher in winter and autumn months is seasonal transitions and upper respiratory tract diseases, which are more common in winter months. In summer, sales are made for beauty and weight loss.

Herbalists mostly procure their products from vendors and intermediaries. Very few collect them themselves and buy imported products. Kara et al. (2021) reported that the majority of drugs sold in herbalists are collected from nature. Irregular collection of plants by local people and herbalists can cause the extinction of plant species. The inability to correctly identify very similar species

due to the insufficient knowledge of the collectors can endanger human health (Tulukçu and Sağdıç, 2011). Most herbalists process the products they buy and sell them. Drying and grinding processes are carried out according to the characteristics of the products. Some herbalists sell without doing any processing. There are herbalists who make their own herbal mixtures.

Herbalists mostly store their products in plastic and glass containers. They also store the products in sacks, bags and boxes depending on their quantity. In studies conducted in other provinces, it has been determined that they are usually stored in sacks and nylon bags (Ötnü and Akan, 2020). One of the herbalists interviewed is a woman. In a study conducted in Kahramanmaraş province, it was reported that all herbalists were male (Koca, 2016). In a similar study conducted in Hatay province, it was stated that the female herbalist rate was 11% (Asil and Taşkın, 2018). In light of these findings, it is observed that the male herbalist rate is higher than the female herbalist rate. There is not much difference in the gender ratio of herbalist customers, and a few herbalists reported that their female customers are slightly more. It was also determined that the age range of the customers is mostly between 35-50. All herbalists reported that their customers come to the herbalist after going to the hospital. Unconscious use of herbs for undiagnosed diseases can endanger human health. People mostly buy herbs to help with treatment. Herbalists stated that they are informed about the current legal status of the herbs sold in their businesses. They also reported that their businesses are inspected by official institutions at least twice a year.

Acknowledge

We would like to thank Osmaniye Korkut Ata University Scientific Research Projects Unit, which contributed to the conduct of this study with the project support coded OKÜBAP-2023-PT2-003.

References

Asil, H. – Taşgın, S.: 2018. Hatay ilinde tıbbi ve aromatik bitki pazarlayan işletmelerin değerlendirilmesi ve aktarların sosyo-ekonomik analizi. *Türk Tarım ve Doğa Bilimleri Dergisi*, 5(4), pp. 556–562.

Başaran, A. A.: 2012. Türkiye'deki Bitkisel İlaçlar ve Ürünlerde Yasal Durum. *MİSED*, 27–28, pp. 22–26.

Bayramoğlu, M. M.: 2007. Doğu Karadeniz Bölgesinde Tıbbi Bitkilerin Pazarı Üzerine Bir Araştırma. KTÜ Fen Bilimleri Enstitüsü, Yüksek Lisans Tezi, Trabzon.

Bellikci, E.: 2011. Türkiye'de gastrointestinal sistem rahatsızlıklarında başvurulan tıbbi bitkilerin etki potansiyelleri. Ege Üniversitesi, Sağlık Bilimleri Enstitüsü, Farmasötik Botanik Anabilim Dalı, Yüksek Lisans Tezi.

Bodnár, B. – Csabai, J.: 2019. "Fűben-fában orvosság" – Gyógynövények gyűjtésének lehetősége Putnok környékén. *Magyar Mezsgye*, 6(2), pp. 12–13.

Bulut, G. – Korkmaz, A. – Tuzlacı, E.: 2017. The ethnobotanical notes from Nizip (Gaziantep, Turkey). *İstanbul Journal of Pharmacy*, 47(2), pp. 57–62.

Csabai, J. – Kolesnyk, A. – Hörcsik, Zs. T. – Kolesnyk, O. – Dobránszki, J. – Cziáky, Z.: 2024. A comprehensive study to identify novel active components, amino acids, and antibiotic activity of *Acmella oleracea* (L.) R.K. Jansen. *South Western Journal of Horticulture, Biology & Environment*, 15(2), pp. 75–96.

Demirci Kayıran, S.: 2019. Dioscorides'in *De Materia Medica* adlı eserindeki tıbbi bitkilerin Doğu Akdeniz Bölgesi'ndeki güncel kullanımlarının araştırılması. *Lokman Hekim Dergisi*, 9(2), 189–202.

Demirci, S. – Özhatay, N.: 2012. An ethnobotanical study in Kahramanmaraş (Turkey): Wild plants used for medicinal purpose in Andırın, Kahramanmaraş.

Ersöz, T.: 2012. Bitkisel ilaçlar ve gıda takviyeleri ile ilgili genel yaklaşım ve sorunlar. *MİSSED*, 27–28, pp. 9–19.

Gelse, A.: 2012. Adıyaman ve çevresinin etnobotanik özellikleri. YYÜ Fen Bilimleri Enstitüsü, Biyoloji Anabilim Dalı, Yüksek Lisans Tezi, Van.

Hacıoğlu, Ö.: 2005. *Achillea* (Anthemideae) cinsi Filipendulinae és Santolinoidea szekcióiba tartozó hét faj illóolaj-kompozícióí és antimikrobiális aktivitása. BÜ Fen Bilimleri Enstitüsü, Biyoloji Anabilim Dalı, Yüksek Lisans Tezi.

Kara, N. – Altıntaş, H. – Şirikçi, B. S. – Gül, M.: 2021. Aktarlardaki bitkisel droglar és használatuk: Isparta példája. *Türk Tarım ve Doğa Bilimleri Dergisi*, 8(3), pp. 540–546.

Kayıran, S. D. – Kırıcı, S.: 2019. Adana (Türkiye) aktarlarında tedavi amacıyla satılan bitkisel droglar. *KSÜ Tarım ve Doğa Dergisi*, 22(2), pp. 183–192.

Kendir, G. – Güvenç, A.: 2010. Etnobotanik és Türkiye'de yapılmış etnobotanik çalışmalar üzerine genel bir bakış. *Hacettepe Üniversitesi Eczacılık Fakültesi Dergisi*, 30(1), 49–80.

Keskinbaş, H. – Aka Sağlıker, H.: 2024. Ethnobotanic research in some villages of the districts of Osmaniye. *Fenntartható Tápanyag-gazdálkodási Tudományos Műhely Konferenciája*, Innovatív Megoldások a XXI. Század Mezőgazdaságában, pp. 34–39.
Keskinbaş, H.: 2023. Osmaniye ilçelerinin bazı köylerinde etnobotanik araştırmalar. OKÜ Lisansüstü Eğitim Enstitüsü, Biyoloji Anabilim Dalı, Yüksek Lisans Tezi.
Kıran, Ö.: 2006. Kozan yöresi florasındaki tıbbi bitkiler és halk tıbbındaki használatuk. ÇÜ Sağlık Bilimleri Enstitüsü, Deontológia és Történeti Orvostudomány Anabilim Dalı, Yüksek Lisans Tezi.
Koca, C.: 2026. Aktarların tüketici profillerinin és satın alma eğilimlerinin belirlenmesi (Kahramanmaraş örneği). KSÜ Fen Bilimleri Enstitüsü, Yüksek Lisans Tezi.
Kolesnyk, A. – Kolesnyk, O. – Leno, Y. – Kosztyuné Krajnyák, E. – Szabó, B. – Hörcsik, Z. T. – … – Csabai, J.: 2025(a). Chemotypic plasticity of *Potentilla erecta* (L.) Raeusch. across elevational gradients in the Ukrainian Carpathians. *Ecologies*, 6(4), 73.
Kolesnyk, A. – Kryvtsova, M. – Salamon, I. – Kolesnyk, A. – Csabai, J.: 2025(b). A rozmaring (*Salvia rosmarinus* L.) kemotípusai, in vitro szaporítása, valamint az illóolaj biokémiai és antimikrobiális tulajdonságai. *Kertgazdaság*, 57(1), pp. 68–84.
Kökçü, B. – Esen, O. – Uysal, İ.: 2015. Çanakkale kent merkezindeki aktarlarda satılan tıbbi bitkiler. *Biological Diversity and Conservation*, 8(3), 80–91.
Metin, A.: 2009. Mut és çevresinde (Mersin) yetişen bitkilerin etnobotanik özellikleri. SÜ Fen Bilimleri Enstitüsü, Biyoloji Anabilim Dalı, Yüksek Lisans Tezi.
Ötnü, H. – Akan, H.: 2020. Şanlıurfa'daki eczanelerde és aktarlarda fitoterapi amaçlı satılan bitkiler. *KSÜ Tarım ve Doğa Dergisi*, 23(4), pp. 947–965.
Sağıroğlu, M. – Aydın, D.: 2024. Cumalıkızık és çevresinde (Bursa) etnobotanik bir araştırma. *Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, 24(4), 758–772.
Sargın, S. A. – Selvi, S. – Erdoğan, E.: 2013. Alaşehir (Manisa) yöresindeki aktarlarda satılan tıbbi bitkiler és kullanım özellikleri. *Biyolojik Çeşitlilik ve Koruma*, 6(3), pp. 40–45.
Sarışen, O. – Çalışkan, D.: 2005. Fitoterapi: Bitkilerle tedaviye dikkat. *Sted*, 14(8), 182–187.
Tulukcu, E. – Sağdıç, O.: 2011. Konya'da aktarlarda satılan tıbbi bitkiler és kullanılan kısımları. *Erciyes Üniversitesi Fen Bilimleri Dergisi*, 27(4), 304–308.
Vehbi, V.: 2014. K.K.T.C.'de aktarlarda satılan tıbbi bitkiler és kullanılan kısımları. Yakın Doğu Üniversitesi, Sağlık Bilimleri Enstitüsü, Farmasötik Botanik Anabilim Dalı, Yüksek Lisans Tezi, Lefkoşa.