





Wild Edible Plants of Mersin (Turkey) and Their Gastronomic Usage Types

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Abstract

It has been demonstrated by many studies to date that more used to plant foods in terms of nutrition is great importance in terms of health. Antioxidant content of plants plays an important role in the prevention or treatment of oxidative stress-related health problems that threaten human health, such as cancer, cholesterol and diabetes. Turkey has a rich plant diversity with the characteristics of its geography. Plants that grow in nature without human intervention and are consumed as food are called 'edible wild plants' and the gastronomic evaluation of edible herbs is mostly limited to the local people living in rural areas. The ways of use, cooking methods and presentation of wild herbs, which are called with different names in different regions, also differ according to the region. It is important to promote the consumption and sustainability of wild plants, which have a very important place in terms of health, to transfer our cultural heritage from generation to generation and to contribute to local gastronomy tourism. In this study, edible herbs consumed in Mersin were determined by interviewing local people from local bazaars and district villages. As a result of the research, 33 different edible herbs were identified. These herbs can be used raw and cooked, in pies, salads, meals, etc. by determining how they were consumed, prescriptions were prepared in line with this information, and dishes were made from the obtained herbs and photographed.

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INTRODUCTION

Humankind started its life adventure with hunting and gathering. Sometimes they tried to meet their eating and drinking needs by feeding on meat and sometimes on grass, they were forced to feed on grass, especially during the foraging period. Grass, which has been intertwined by human beings since the first ages to the present day, is mostly used in the sense of herbs that are not grown by humans, but grow spontaneously in nature and are not exposed to any human intervention (Karaca et al., 2015: p.28). The use of plants for food, spice and healing purposes dates back to ancient times. (Gül & Dinler, 2016). During this time in history, mankind discovered, through trial and error, over generations, that some plants would help in curing diseases, while others could cause poisoning and death (Şenşafak, 2015). It is estimated that there are between 750,000 and 1,000,000 plant species in the world. About 500,000 of these plants have been described and named. It is stated that the plant species consumed for food in the world are about 20% of the general plant species. The number of wild plants that can be consumed as food has been recorded as approximately 10,000 (Yücel et al., 2011: p.72). Changes in patterns of wild plant use differ by region and are associated with lifestyle changes, lesser contact with nature, large-scale farming, urbanization, and other reasons.

Edible wild plants have been used in Anatolia for approximately 50,000 years. Civilizations such as Mesopotamia, Ancient Egypt, Hittite, Greek, Roman, Seljuk and Ottoman have taken advantage of these wild plants for many purposes and included them in their own nutritional culture (Urhan et al., 2016).

Since the majority of Turkish people live in rural areas, a large part of these wild plants are used for food purposes, and some of them are used for different purposes such as spices, medicine and dyes (Baytop, 1984). Ethnobotanical studies carried out in Turkey, which constitutes a very rich research area for ethnobotanical studies and is home to many civilizations, are of great importance for the transfer of this information from generation to generation (Altay & Karahan, 2012). In recent years, the use of wild edible plants, especially in Turkish culinary practices, has become quite common. Such plants are consumed raw or cooked as vegetables and can be prepared in a number of ways, depending on the various regions of Turkey where they occur (Ertug, 2014; Tan et al., 2017). Especially in the case of an increase in ethnic diversity in the regions, it is seen that the use of plants also diversifies and more recipes are formed (Dogan et al. 2013). Koca et al. (2011) state that the use of plants as both nutrition and medicine in our country dates back to ancient times and the use of plants as nutrition and medicine in rural areas continues today, while Çakılcıoğlu & Türkoğlu (2010) emphasize the importance of documenting the local names, usage purposes and benefits of these plants through ethnobotany.

Wild plants consumed as vegetables in some regions of Turkey (especially in Western and Southern Anatolia), especially plants collected by women and children, are offered for sale in local bazaar when the season comes (Çolakoğlu & Bilgir, 1977; Okan & Açıktur, 1983; Baytop, 1984). Wild plants are used as vegetables in big cities, and they are also sold in local bazaar established in city centers (Baytop, 1984; Yücel & Unay, 2008).

Edible grass consumption has become one of the habits that people who migrate to the city today, in parallel with urbanization, have given up. Since people are not intertwined with nature over time, they have come to recognize only cultivated herbs. Grasses that grow spontaneously in nature have begun to be consumed by young people in cities and even in the regions where they grow. Recently, steps have been taken to change this situation. In particular, people have become curious about what edible wild herbs are, how they are consumed, their taste, how they are cooked, and the benefits of herbs. As this is the case, weeds have begun to take their place in restaurant menus,

festivals and in many different places such as local bazaars (Ceylan & Şahingöz, 2019).

The aim of our research is to increase the awareness of herbs, which are the source of healing with their unknown flavors, by researching and revealing their usage areas, and to contribute to the foreground and inclusion of local flavors in hotel and restaurant menus. Although edible natural herbs, which have been heavily consumed by people from the past to the present, are consumed more especially in rural areas, people who have adapted to urban life still continue their habits by consuming edible herbs sold in local bazaars. The continuation of these habits of people in the urban environment and the detection of these plants are important in terms of transferring traditional knowledge to future generations. On the other hand, determining the way edible plants are included in the gastronomic field in the local sense is another important information. For this purpose, edible plants of Mersin province, which is located in the Mediterranean region of Turkey and has a significant population, were determined in our study. Different uses of these determined plants in the local cuisine have been reported. In addition, both the state of the plants sold in local bazaars and the use of the public were photographed.

Materials and Methods

Study Area

Mersin province is located between 36-37° north latitude and 33-35° east longitude. The province is located in the west of the Çukurova part of the Mediterranean Region (Figure 1), on the mostly high, rugged and rocky Western and Central Taurus Mountains. The Taurus Mountains lie between the Konya plain of Central Anatolia and the Mediterranean, in a high-roofed belt, in the West-East direction. Bolkar Mountains separate Mersin lands from Central Anatolia like a wall. Mersin province covers 2% of Turkey's territory with an area of 15,485 km² (Everest & Rauss, 2004).



Figure 1. Map of the Study Area (Wikipedia)

Data Collection Technique and Analysis of the Research

The interview method, which is one of the data collection methods, was used in the research. This method, which is mostly used in social sciences, is the method of data collection through conversation. Since the information is obtained directly from the primary source, it offers the researcher the opportunity to obtain more comprehensive information (Dinler, 2016, p.78). The interviews were made with the people selling natural plants in the local bazaar and with the local people in the surrounding villages. Plants that grow naturally in Mersin province and its surroundings and are used as food by the people have been investigated and evaluated with the contribution of both floristic information and folkloric information.

The field research was conducted between 2016 and 2017. For this purpose, first of all, the district local bazaar were visited and the wild herbs offered for sale as edible were identified and the places where these herbs were collected were determined. Afterwards, mutual interviews were made with the people living in various villages of the province and information was obtained about other regions where grasses are grown and their usage areas. Sufficient material was collected from the region with the help of people who have sufficient knowledge and experience about the local names, collection and consumption of the herbs to be examined in the research.

In the interviews, the plant; Where was it collected from? Frequency in its location? For what purpose is it sold? If it is used for food, medicinal purposes or any other way, the basis of consumption? etc. questions have been asked. The identifications of the plants bought from the local bazaars were made by the lecturers related to the subject. Photographs of each of the collected products were taken separately. While conducting ethnobotanical studies, both the local people and the identified plant samples were asked. Each of the collected products was photographed separately. In line with the information received, the consumption patterns of the herbs were re-prescribed, the dishes were prepared and photographed, taking into account the traditional production methods. Species identifications were made by Dr. Mustafa Pehlivan, working at Gaziantep University, Nurdağı Vocational School, using the work called Flora of Turkey and the East Aegaen Islands (Davis, 1965-1985; Davis et al., 1988).

Validity and Reliability of The Research

"The universe is the whole of the elements that make up the researcher's field of study and that the results of the research are intended to be generalized" (Doğan et al., 2017).

The universe of the study consists of edible weeds that grow within the borders of Mersin province. The data were obtained by using the method of interviewing the people selling in the local bazaars and the local people living in the surrounding towns and villages. Sample subject to scientific research is defined as a set of elements with a relatively small number selected from the universe according to certain rules and accepted to represent the universe from which they were selected. Easy sampling method is the inclusion of all individuals suitable for the research (Doğan et al., 2017), this sampling method was preferred in the research in question.

The sample of the study examined consists of 42 participants living in the city of Mersin. Since it was not possible to reach the entire universe, the purposeful sampling method of the participants was used. Purposeful sampling is the researcher's determination of the sample by choosing from the universe in line with his/her own goal. While determining the sample, care is taken to select the items most suitable for the research problem (Şimşek, 2018: p.121).

Limitations and Assumptions of The Study

People have been benefiting from plants for centuries for nutritional and therapeutic purposes. Many ethnobotanical studies on plants are included in the literature. These studies are mainly in the fields of plant flora characteristics and pharmacy, and there are limited studies on the evaluation of plants in the field of gastronomy. There are mostly limitations in the studies conducted in social sciences, the first limitation of this research is that it deals with the edible weeds grown in Mersin and excludes the weeds grown in other provinces. The second limitation is that it only researches the edible weeds grown in Mersin and excludes other weeds from the scope. It is one of the basic assumptions of the research that ideal data suitable for the purpose of this research is collected. The other

assumption of this research is that people perceive the questions asked correctly and give correct answers in the interviews held in the local bazaars and in the surrounding villages..

Results and Discussion

The demographic information of the participants and their use of edible weeds, as a result of the interviews with the people of the center of Mersin and with the local bazaars selling wild plants in the district local bazaars of Viranşehir / Pozcu / Tece / Mezitli district, with the people selling wild plants in the neighborhoods, with the local people living in the highland and farming in the surrounding villages. information is given in Table 1.

Table 1. Demographic Characteristics of The Participants in The Study

Interviewed Persons	Age	Male/Female	Occupation	Plant Using
Interviewer 1	45	Female	Peddler	+
Interviewer 2	47	Female	Peddler	+
Interviewer 3	53	Female	Farmer	+
Interviewer 4	62	Male	Farmer	+
Interviewer 5	48	Female	Peddler	+
Interviewer 6	51	Male	Farmer	+
Interviewer 7	67	Female	Farmer	+
Interviewer 8	39	Female	Peddler	+
Interviewer 9	41	Female	Peddler	+
Interviewer 10	69	Female	Housewife	+
Interviewer 11	55	Female	Housewife	+
Interviewer 12	43	Female	Peddler	+
Interviewer 13	55	Female	Housewife	+
Interviewer 14	48	Female	Farmer	+
Interviewer 15	62	Male	Farmer	+
interviewer 16	59	Female	Housewife	+
Interviewer 17	56	Female	Peddler	+
Interviewer 18	45	Female	Housewife	+
Interviewer 19	50	Female	Housewife	+
Interviewer 20	55	Female	Peddler	+
Interviewer 21	62	Female	Housewife	+
interviewer 22	26	Female	Housewife	-
interviewer 23	25	Female	Worker	-
Interviewer 24	32	Female	Worker	+
Interviewer 25	19	Female	Student	-
Interviewer 26	21	Female	Student	-
Interviewer 27	27	Female	Worker	-
Interviewer 28	16	Female	Student	-
Interviewer 29	27	Female	Housewife	-
Interviewer 30	29	Female	Housewife	+
Interviewer 31	17	Female	Student	-
interviewer 32	16	Female	Student	-
Interviewer 33	24	Female	Worker	-
Interviewer 34	28	Female	Worker	-
Interviewer 35	29	Female	Worker	-
Interviewer 36	18	Female	Student	-
interviewer 37	26	Woman	Worker	-
Interviewer 38	23	Female	Housewife	-
Interviewer 39	31	Female	Housewife	-
Interviewer 40	34	Female	Housewife	+
Interviewer 41	17	Female	Student	-
Interviewer 42	29	Female	Worker	-

As seen in Table 1; In the study, 42 people were interviewed. Twenty-one of the interviewees are people who know wild herbs, evaluate them as food and earn income from these herbs. 18 of them are female and 3 are male. 8 of the women are housewives, 9 are peddlers and 3 are engaged in farming. All three of the men are farmers. The other 21 interviewees were made especially with women whose age group was younger. 6 of them are housewives, 7 of them are students and 8 of them are employees.

The other 21 interviewees are women who go shopping in the local bazaars. 8 of these people are working women, 7 are students and 6 are housewives. In addition, 3 of the women who came to the bazaar to shop and were interviewed are between the ages of 40-45. They stated that they bought many wild herbs sold in local bazaars and that they were interested in weeds for health purposes. However, they said that the herbal cures in the media encouraged them to buy herbs. Edible weed consumption is generally realized by middle-aged and older people who buy wild plants, but the young population does not show interest in these plants.

The other 18 women who shopped stated that they used thyme, rosemary and sorrel, but they did not know and had never tasted any other wild herbs sold. In the interviews made with Mersin Center and the people of the district, it was concluded that herbs are generally known and consumed by the public more than the center.

The information obtained about the people who did not want to participate in the interviews during the fieldwork is that they do not generally consume edible weeds as food, because they are afraid that eating herbs they do not know may be poisonous or because they have not tasted it before, it is not suitable for their taste. If a wild plant meal is to be made, it has been stated that these herbs are generally made of known herbs such as spinach, and these herbs are consumed by making sheet pastry.

The result of our study, some data about the usage areas of plants are given in Table 2. According to these results, it has been determined that 33 different edible wild herbs are consumed in total in Mersin.

According to the results of the study, there are many plants sold in local bazaar in Mersin and consumed in different ways by the local people. As a result of the interaction between gastronomy cultures in different regions, it has been reported that a significant part of these plants are also used in similar studies conducted in Turkey. However, although the wild herbs used by the public are similar, there may be some differences in the way they are used. A plant used as a salad in one region can be consumed by adding it to pilafs in another region. On the other hand, some of the weeds that are consumed by collecting from nature can be started to be produced in cultural environments depending on the demand intensity that occurs over time (Purslane & Sorrel). Wild herbs, which are among the important elements of local gastronomy, are still indispensable foods in the diet of people today. In fact, "Herbs festivals", which have become routine for this type of food consumption, are also emerging as touristic activities at a remarkable rate. Although the Latin names of some species are clearly written here, some are given at the genus level. The main reason for this situation is that some plants that are consumed in the local cuisine have a large number of species of the genera they belong to and many species of these genera can be used.

Table 2. Wild Edible Species Determined in The Study Area And Their Usage Areas

Number	Latin Name	Turkish Name	Salad	Pastry	Meals	Roasted	Dried
1	<i>Taraxacum</i> sp.	Karahindiba	+				+
2	<i>Nasturtium officinale</i>	Su teresi	+				
3	<i>Glaucium</i> sp.	Gelinali	+	+	+		
4	<i>Rumex</i> sp.	Kuzukulağı	+	+			
5	<i>Isatis</i> sp.	Nalçeken otu	+			+	
6	<i>Stellaria</i> sp.	Cücübağıracağı	+		+		
7	<i>Capsella bursa-pastoris</i>	Çoban çantası		+			+
8	<i>Sinapis arvensis</i>	Hardal otu	+			+	+
9	<i>Asphodelus</i> sp.	Çiriş otu			+		
10	<i>Salicornia</i> sp.	Deniz Börülcesi	+		+		
11	<i>Malva neglecta</i>	Ebegümece		+	+	+	
12	<i>Erodium</i> sp.	Cılık burnu	+				
13	<i>Raphanus</i> sp.	Garagıcı otu		+	+		
14	<i>Allium</i> sp.	Görmen otu		+	+	+	
15	<i>Pelargonium</i> sp.	Gül damlası					+
16	<i>Erodium cicutarium</i>	İğnelik otu		+	+		
17	<i>Urtica dioica</i>	Isırgan otu		+	+	+	+
18	<i>Origanum</i> sp.	Keklik otu	+				+
19	<i>Silene</i> sp.	Gıvışkan otu		+	+	+	
20	<i>Polygonum</i> sp.	Madımak		+	+	+	+
21	<i>Beta</i> sp.	Pezik		+	+	+	
22	<i>Mentha pulegium</i>	Yarpuz otu	+				
23	<i>Galanthus</i> sp.	Kardelen		+			
24	<i>Arum</i> sp.	Yılan otu			+		
25	<i>Thymus</i> sp.	Dağ kekiği	+				+
26	<i>Cnicus</i> sp.	Diken otu				+	
27	<i>Calendula</i> sp.	Aynı sefa otu		+			+
28	<i>Foeniculum</i> sp.	Arapsaçı			+		
29	<i>Chenopodium</i> sp.	Bostan güzeli	+		+		
30	<i>Beta vulgaris</i> sp.	Yalancı pezik		+	+	+	
31	<i>Amaranthus retroflexus</i>	Karabacak otu	+	+	+	+	
32	<i>Silybum marianum</i>	Elek otu		+	+		
33	<i>Rosmarinus officinalis</i>	Biberiye	+				+

In the study, especially *Urtica*, *Polygonum* and *Amaranthus* species are consumed in 4 different types, while weeds belonging to *Beta*, *Allium*, *Malva*, *Silene* and *Sinapis* species have been found to be widely used with 3 different types of consumption. In addition, it was determined that cooking (18%), making salad (16) and pastry (14%) were the most consumed edible wild herbs in Mersin province (Figure 2)

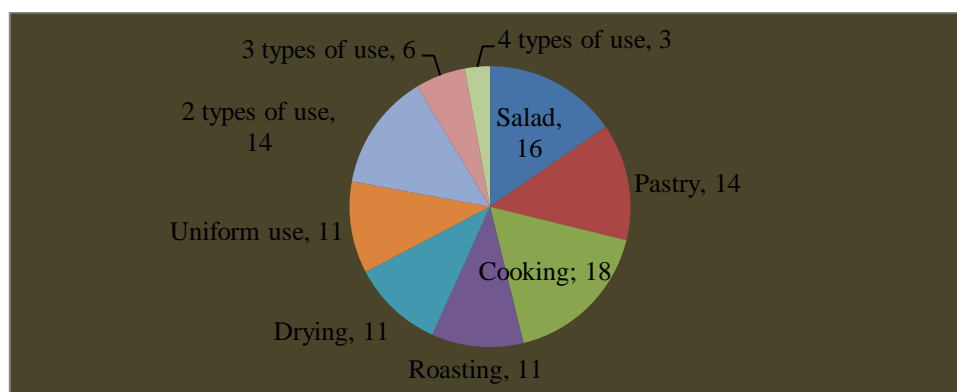


Figure 2. Use Type Table of Consumed Edible Plants

In our study, edible wild plant species used by the local people in terms of gastronomic aspects were determined, and besides, visuals of which dishes the people made from these plants were obtained. When the local people collect these plants from nature and/or buy them from local bazaars, they were contacted when they would cook from these plants. Detailed information about what kind of dishes they make from these plants and how many different ways a plant can be evaluated are provided. The dishes photographed were then classified under different titles (the ones used in salads, pastries, meals, and roasting, etc.).

As can be seen in Figure 3, the local people generally use edible herbs and other foods such as tomatoes, onions, olives, cucumbers or parsley along with these plants when making salads. In general, these foods are used to neutralize the pungent odor, especially in plants with high aromatic content. In our study, it was determined that edible weeds, which were determined to be used in salad making, were also used for similar purposes in other studies (Akan et al, 2008; Altay et al., 2015; Ceylan & Şahingöz, 2019; Yeşil & İnal, 2019; Şimşek et al., 2020; Demir & Ayaz, 2022).



Figure 3. Some Plants Determined to be Used in Salads and Their Photos (photed by V. Özhan)

Within the scope of the study, it was determined that some of the edible herbs were used especially in the production of pastries (Figure 4.). It has been determined that the local people are sometimes pre-treated by boiling or roasting with onions while making pies from plants. On the other hand, in many studies conducted in Turkey, it

has been stated that these plants are widely used. In addition, it was determined that Malva, Rumex, Glaucium, Allium and Capsella species of these weeds were also evaluated in dishes other than pastry.



Capsella bursa-pastoris



Rumex sp.



Glaucium sp.



Malva neglecta



Allium sp.



Galanthus sp.

Figure 4. Some Plants Determined to be Used in Pastry and Their Photos (photed by V. Özhan)

It has been determined that the people in Mersin have used some of the edible wild herbs in the production of very different dishes from ancient times. Especially in many studies, the dish called "Tırşik" from the Arum plant is the most common one (Figure 5.) On the other hand, the Taraxacum plant is known as "Karahindiba" in Turkey and it is known that it is consumed for medicinal purposes as well as for use in food (Baytop, 1999). Asphodelus (Çiriş), another edible herb used in the region, is a plant with intensive use in Turkey (Badayman et al., 2018).



Taraxacum sp.



Asphodelus sp.



Raphanus sp.



Polygonum sp.



Arum sp.



Foeniculum sp.

Figure 5. Some Plants Determined to be Used in Meals and Their Photos (photod by V. Özhan)

In the study, some species used by roasting in the local cuisine were also determined. It has been determined that the *Taraxacum* plant, which is consumed in almost every kind of consumption, is also roasted. On the other hand, it was revealed in the study that *Silybum* and *Silene* plants were also roasted (Figure 6.)

Due to the fact that Mersin is a coastal city, the *Salicornia* plant, which grows in salty soils, is among the plants that are roasted. In other studies on *Salicornia*, it has been stated that this plant is also consumed fresh in the first three months of the year, and it is also a suitable species to be used as canned (Bilek et al., 2014).



Figure 6. Some Plants Determined to be Used in Roasting and Their Photos (photod by V. Özhan)

On the other hand, the cultivation of some plants, which have increased awareness and use among the public, will prevent those plants from being endangered by collecting them from nature. For example, *Portulaca oleraceae*, *Rumex* sp. *Capparis* sp. such plants were previously collected and used only from nature, but today they are cultivated.

In addition, there was no significant difference in terms of health benefits between some plants such as *Portulaca oleraceae* that were collected from nature or cultivated (Yurdagul, 2019). For this reason, it is important to examine the plants whose consumption is increasing in gastronomic terms and which are considered to be cultivated, especially in terms of nutritional values. Such studies will also prevent the unconscious collection of edible weeds from nature.

Studies on edible herbs in Turkey have generally been carried out under the concept of ethnobotany. In this context, the use of many plants by humans is mentioned in many ways. Ethnobotanical studies focus on the use of plants for health, landscape, food, belief, household equipment, animal feed, etc. purposes. According to the study of Koyu, (2021), 2884 different taxa with ethnobotanical usage records were identified in the studies conducted between 1928-2014 in Turkey. Most of these identified taxa (1902 taxa) were used for human health purposes. According to the researcher's study, it was stated that the consumption of edible wild plants, which is our study subject, is in the second place in the ethnobotanical use of plants (1404 taxa). In addition, the researcher reported that he found use as fodder (663), dye plant (279), ornamental-ornamental plant (233), and animal feed (192). In her study, the researcher listed the plants that were found to be used as food in the majority of studies on edible herbs in Turkey. As a result of this study, *Urtica dioica*, *Portulaca oleracea*, *Chenopodium album*, *Rosa canina*, *Malva* spp. (*neglecta* or *sylvestris*), *Nasturtium officinale*, *Sinapis arvensis*, *Glycyrrhiza glabra*, *Mentha pulegium*, *Rheum ribes*, *Scolymus hispanicus*, *Taraxacum* spp. and *Rubus* spp. were reported to be the most widely used species. However, studies on the use of edible herbs only in the cuisine are not enough yet.

However, studies on the gastronomic use of edible herbs are not yet sufficient. Detailed information on the use of edible herbs in studies conducted in this context will prevent this information from remaining as historical information. Since edible herbs and their gastronomic evaluation are part of the general culture of a region, the spread of this information will pave the way for intercultural interaction. On the other hand, studies on the determination of edible herbs and their use in local cuisine will ensure that traditional cuisine information is recorded.

Conclusion

From the beginning of the 19th century, after the industrial revolution, people left their urban living spaces and gradually started to be included in the urban population. For this reason, people living in cities cannot use the plants they used to collect and bring from natural or semi-natural areas in rural areas and evaluate them in terms of gastronomic aspects as before. Moreover, people who have chosen to live far away from their ancestral lands are starting to forget about the natural edible grasses and plants inherited from their ancestors day by day. The continuation of the use of traditionally used natural edible herbs and their inclusion in our gastronomic memory is important in terms of transferring this information to future generations. For this reason, it is important to collect and record this information from academic perspectives. On the other hand, placing these plants only in personal kitchens may disrupt the flow of information about those plants. Therefore, natural edible herbs should also be commercially evaluated in gastronomy businesses. Thus, it will be easier to identify these plants, to know the areas where they are found and the time of collection, and to reach original information about cooking methods.

The global climate crisis and the biodiversity crisis, which are being felt more and more in the world, have pushed people to be more concerned about food. Today, there are many studies on the fact that people include some gastronomic elements arising from traditional knowledge in their kitchens, as well as their desire to reach natural food. The reasons such as the fact that they are collected from natural areas, they are inexpensive, (even if they are bought from local bazaar, cheaper than classical agricultural products), the idea that they are natural, and the gastronomic memory have made the use of these plants more attractive. For this reason, it is important to carry out studies on edible herbs in terms of transferring this information from generation to generation. With this study we have done and similar studies conducted by other researchers, both regional floral differences and usage differences in the use of edible herbs can be revealed more clearly.

The ways of use, cooking methods and presentation of wild herbs, which are called with different names in different regions, are shaped and differ according to the region. The dissemination of the consumption of wild plants, which have a very important place in terms of health, and ensuring their sustainability are important in terms of transferring our cultural heritage from generation to generation and contributing to local gastronomic tourism. So in this study, edible herbs consumed in Mersin region were determined by conducting interviews with local people from local bazaar and district villages. As a result of the research, 33 edible herbs were identified.

Finally, the plants collected from the nature can be used in gastronomic terms after undergoing the necessary processes. A city like Mersin, overlooking the Mediterranean coast on one side and the Taurus Mountains on the other, has an important place in terms of edible herbs. This potential needs to be linked on from generation to generation. However, one thing to note is; These plants should be carefully observed when they are collected from nature, especially in industrial areas, around the urban environment, in waste collection areas or from areas close to

agricultural lands that are constantly sprayed. Otherwise, while we think we are consuming an edible herb that we consider natural, we may also consume foods that are seriously contaminated with pesticides or heavy metals.

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Statement of Conflict of Interest

The author(s) declare no conflict of interest for this study.

Author's Contributions

The contribution of the authors is equal.

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