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Sale of Medicinal and Aromatic Plants and Economic Dimensions in Eskişehir Herbalist

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Abstract
The aim of this study is to determine the status of plants used in medicinal plants sold in Eskişehir province and to reveal their economic dimensions. Within the scope of the study, general information of medicinal and aromatic plants sold in herbal extracts in central districts were collected and their contribution to provincial economy was determined. As a result of the studies carried out, it was found out that the majority of medicinal and aromatic plants sold in herbal were obtained from wholesalers. At the same time, the purpose and shape of these plants, the parts used, commercial sales form and the data obtained from the sales prices are presented in the scope of the study. There are approximately 60 registered herbalist in the central districts of Eskişehir province. In this study, twenty face-to-face interviews were conducted. Monthly and annual turnovers of these herbalist are shown in the relevant tables without specifying the company name. In this study, the average monthly turnover was taken and multiplied by the number of registered herbalist in Eskişehir province, it was seen that the market share of approximately TL 336,000 per month and annual TL 4,032,000. Considering that at least two people are employed in an average herbalist, it is concluded that approximately 140 people earn their living from this sector. As a result, in this study, it is revealed that the economic dimension of this sector has a significant share for Eskişehir (Turkey) economy.

Keywords: Medicinal and Aromatic Plants, Ethnobotany, Biodiversity, Economy, Eskişehir.

INTRODUCTION

Today, medicinal and aromatic plants are used in the treatment, prevention and treatment of diseases. Medicinal and aromatic plants; food, medicine, cosmetics and spices, which are used for many purposes and from the beginning of human history are known to be used for these purposes. The therapeutic use of plants varies according to the level of development of the countries. It is also used as nutritional supplement, herbal tea, taste, condiment and food from medicinal plants. On the other hand, skin care, perfumery and cosmetics are also used in the industry. Although the distribution of plants on earth is uneven, tropical regions are the richest in terms of plant diversity. . Some information about medicinal and aromatic plants sold in herbal extracts in the center of Eskişehir province was collected. The local names, latin names, the parts used, the usage forms, the purposes of use, usage periods, where they were obtained and some economic dimensions of the medicinal and aromatic plants sold in herbal were determined. Some of the medicinal plants are collected from natu re some of them have been cultured and produced.

It is known that between 70.000 and 80.000 of the 400.000 plants known to exist on earth are used for medicinal and aromatic purposes. Especially countries such as China and India have a large share in the use of medicinal and aromatic plants. The flora of our country is quite rich and it is known that there are about 13.000 plant species. In Turkey, about 2.000 plants are used for medicinal and aromatic purposes. In the province of Eskişehir, up to 100 plants species were widely used for medicinal and aromatic purposes.

MATERIALS and METHODS

The data used in this study were obtained through face to face interviews with 20 herbalist operating in Eskişehir between 2017-2018. The data used in this study were obtained through face to face interviews with 20 herbalist operating in Eskişehir between 2017-2018. Information on the economic dimensions of the plants sold in herbal products was also determined.

RESULTS and DISCUSSION

Face-to-face interviews with 20 herbalists operating in Eskişehir city center were used for 58 different plant species for medicinal and aromatic purposes in 2018. Information about the purpose of these plants, which part of the plant is used, how it is used, which diseases are used in the treatment and how many liras were sold. Information on the use of plants is given in table 1.

Table 1. Medicinal and aromatic plants sold in Eskişehir herbalist and some information

No	Turkish Name	Latin Name	Used Part	Usage	Pupose of use	Use Time (Day)
1	Mayıs Papatyası	*Matricaria camomilla*	leaf	tea-cream	sedative, psoriasis, eczema	14
2	Nane	*Menta piperata*	leaf-stem	tea-oil	getter, stone removal, joint pains	14
3	Meyan Kökü	*Glycryyhiza glabra*	root	tea	ulser, cough	14
4	Sarı Kantaron	*Hypericum perforatum*	leaf	tea	sedative, wound healing	14
5	Zencefil	*Zingiber officinale*	root	tea	nausea, cold	14
6	Alıç	*Ctrateagus monogyna*	fruit	vinegar	vein opener	21
7	Kekik	*Thymus* sp.	leaf	tea	asthma, bronchitis,	14

					hypotension	
8	Aynı Sefa	*Calendula officinalis*	stem	crem	nail fungus	30
9	Ceviz Yaprağı	*Juglans regi*	leaf	crem	liver, kidney, bladder, pancreas diseases,	14
10	Atkestanesi	*Asesculus hippocatane*	fruit	crem	joint pains, hemorrhoids	30
11	Atkuyruğu	*Equisetum arvense*	stem-root	tea	cough, rheumatism, dandruff, eczema	14
12	Karahindiba	*Taraxacum officinale*	leaf-root	tea	liver, kidney, bladder, pancreas diseases,	14
13	Zerdeçal	*Cucuma longa*	root	tea-crem	acne, painkiller	30
14	Isırgan	*Urtica dioica*	leaf	tea-crem	inflammation, rheumatism,	30
15	Çoban çantası	*Capsella bursa-pastoris*	leaf-stem	tea	kidney stone, hemorrhoids, menstruation	14
16	Devedikeni	*Silymbum marianum*	seed	tea	liver diseases, alzheimer	14
17	Ekinezya	*Echicane angustifolia*	leaf-stem	tea	cold	14
18	Sarımsak	*Allium sativum*	root	tea-extract	cholesterol, relieving, hypertension, antibiotic	14
19	Rezene	*Foeniculum vulgare*	seed	tea	cholesterol, degassing, hypertension, antibiotic	14
20	Ginkgo	*Gingo biloba*	leaf	tablet	alzheimer, vertigo	14
21	Kediotu	*Valeriana officinalis*	root	tea	migraine, depression	14
22	Melisa	*Melisa officinalis*	leaf	tea	Hiccups, cold	14
23	Karanfil	*Syzgium aromaticum*	seed	tea-powder-chewing	bad breath, gingivitis	14
24	Hatmi çiçeği	*Althea officinalis*	root-leaf-flower	tea	flu cough	14
25	Çemen otu	*Trigonella foenicum-graecum*	seed	tea-powder	sputum	14
26	Kara turp	*Radix raphani*	rood	fresh	digestion	14
27	Biberiye	*Rosmarinus offisinalis*	leaf	tea-powder	indigestion, nausea	14
28	Acı kırmızı biber	*Capsicum anuum*	fruit	powder	weakening	14
29	Anason	*Pimpinella anisum*	fruit-leaf	tea-oil	sedative	14
30	Kişniş	*Coriandrum sativum*	seed-leaf	tea-oil	rheumatism	14
31	Sığır kuyruğu	*Verbascum* sp.	root-leaf-flower	Tea-oil	cough, migraine, hemorrhoids	14
32	Tarçın	*Cinnomum zeylanicum*	kortex	powder	diabetes	14
33	Lavanta	*Lavandula officinalis*	flower	tea- oil	diuretic, migraine	14
34	Şerbetçiotu	*Humulus lupulus*	flower	tea	prostate	14
35	Okaliptus	*Eukalyptus*	leaf	tea-oil	expectorant	14
36	Adaçayı	*Salvia officinalis*	leaf	tea	inflammation, fatigue	14
37	Kakule	*Eletaria cardamomum*	seed	tea	stomach, bad breath	14
38	Ayrıkotu	*Cynodon dactylon*	root-leaf	tea	kidney stone, prostate	141
39	Maydanoz	*Petroselinum crispum*	root-leaf	tea	cellulite, edema, nausea	4
40	Mürver	*Sambucus nigra*	Leaf-fruit	tea	phlegm, constipation	14
41	Keten tohumu	*Linum ultitissimum*	seed	powder-extract	slimming, heart diseases	14
42	Sinameki	*Cassia angustifolia*	flower-leaf	tea-cream	hemorrhoids	14
43	Ihlamur	*Tilia cordata*	flower-leaf	tea-extract	influenza	14
44	Muskat	*Myristica* sp.	fruit	extract	relieving pain, epilepsy	14
45	Havlıcan	*Alpinia officinarum*	leaf-flower	extract	diuretic	14
46	Andız kökü	*Juniperus drupaceae*	root	Cream- extract	psoriasis, eczema	14
47	Üzerlik	*Peganum harmala*	seed	tea- extract	Parkinson, insomnia	14
48	Acı çehre	*Rhamnus cataticus*	seed	extract	getter	14
49	Kebabiye	*Piper cubeba*	seed	tea- extract	inflammation	14
50	kınakına	*Cinchona pubescens*	kortex	tea- extract	antipyretic	14
51	7 Kardeş kanı	*Sanguis draconis*	balsame	tea	shortness of breath	14
52	Ardıç	*Juniperus excelca*	fruit	cream	sinusitis, inflammation	14
53	Karahalile	*Terminali chebula*	flower-seed	tea	diarrhea, hemorrhoids	14
54	Buhur	*Sytrax liguidus*	stem	balsame	shortness of breath	14
55	Darülfülfül (Tiflis Biberi)	*Piper* sp.	seed	chewing	diabetes	14
56	Çekem meyvesi	*Viscum album*	seed	tea	hypertension	141
57	Hiltan Tohumu	*Ammi visnaga*	seed	tea	kidney diseases	14
58	Ginseng	*Panax quinquefolius*	root	tea-capsule	liver diseases	14

58 plants were determined to be the most sold in Eskişehir. They are generally used in cough, migraine, hemorrhoids, diabetes, inflammation, kidney stone, prostate, stomach, bad breath, rheumatism, sedatif, heart and liver diseases.

In face-to-face interviews with 20 herbalists in Eskişehir, it was seen that they made different sales amounts. The reasons for these changes are seasonal and the differences between the locations of the shops. It is seen that the annual sales amount of 20 herbalist in Eskişehir is approximately 4.000.000 Turkish Liras. This sales amount gives a rough idea about the economic dimensions of medicinal and aromatic plants in Eskişehir. Thus, it is seen that plants have not only natural features but also an important economic dimension.

Table 2. Sales amount of herbalists in Eskişehir (acording to 2018 data)

Herbalist No	Monthly Sales (TL)	Annual Sales (TL)
1	15.000	180.000
2	16.000	192.000
3	12.000	144.000
4	17.000	204.000
5	20.000	240.000
6	30.000	360.000
7	10.000	120.000
8	13.000	132.000
9	12.000	144.000
10	16.000	192.000
11	8.000	96.000
12	10.000	120.000
13	14.000	168.000
14	12.000	144.000
15	15.000	180.000
16	20.000	240.000
17	18.000	216.000
18	15.000	180.000
19	13.000	156.000
20	50.000	600.000
Total	**336.000**	**4.032.000**

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