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Awareness of medical and aromatic plants in the western black sea region

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Abstract

In our research, the level of awareness about medicinal and aromatic plants in different professions groups (farmers, civil servants, workers, retired, students and unemployed) and education levels were examined through direct interviews in Western Black Sea Region (Düzce, Sakarya, Zonguldak, Bartın). By using the Neyman method, 77 people were investigated, based on the Likert scale to measure awareness levels, and the results were evaluated by SPSS method.

As a result of our research, 24.7% of them prefer medicinal and aromatic plants when they are sick, while 81.8% think that medicinal and aromatic plants are organic. 66.2 %agree that organic certification is required for medicinal and aromatic plants. 63.6% of inadequate education is remarkable when the problems are expressed. At the rate of 5.2% is TV and 15.6% is for newspapers are used for information acquisition. According to the study, it was concluded that the level of awareness of the medicinal and aromatic plants in the Western Black Sea region is not sufficient, and starting from school programs, it is necessary to raise awareness of the public by means of non-formal education, magazines and courses besides TV and newspaper.

Keywords: Western Black Sea Region, Medicinal and aromatic plants, Awareness

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Introduction

All animals, plants and humans in nature are the product of a balance. In mythology, plants were treated as the most valuable gift given to humans by the Gods. All plants are in the service of human being and the relationship with plants has begun from the human existence. According to archaeological findings from the early ages, people were primarily benefited from plants to obtain nutrients and to address health problems (Koçyiğit, 2005.).

Throughout the history of humanity, many diseases (diabetes, hepatitis, shortness of breath, etc.) have been tried and tried to be treated using plants. The World Health Organization (WHO) reports that nearly 4 billion people around the world are trying to eliminate health problems with herbal drugs in the first place (80% of the world population). Furthermore, 25% of the prescriptions are plant originated (vimbilastin, reserpine, quinine, aspirin, etc.) in the developed countries (Farnsworth, et al, 1985). Especially after the 1990s, the presence of new areas of medicinal and aromatic plants, increase in demand for natural products; It increases the volume of use of these plants every day. Today, the medical plants market is estimated to have an annual figure of about 60 billion dollars (Kumar, 2009).

The interest and demand for organic production plants and drugs is increasing every day. According to the five-year data, which covers the 2003-2007 years in Turkey, the

organic production area is 147,589 ha and the production area of the medicinal plants in this area is 1,977 ha. The share of medicinal plants in total area is 1.3%. The average organic product production quantity for the same period in terms of production quantities is 308,014 tons. In total production, the production of medicinal and aromatic plants is 12,928 tons and its share is 4.5% (Bayram, et al, 2010).

The western Black Sea region continues from the west of the Kızılırmak Delta to the Adapazarı Plains. Düzce, Sakarya, Zonguldak and Bartın are among the provinces of the Western Black Sea region. The first striking feature of the region is that it is a mountainous region. The mountains in this area are more or less parallel to the shore and are in a row separated from each other by pit areas. The second feature of the region is that it is open to sea effects. For this reason, the region is rainy in every season and the temperature difference between seasons is very low. A lush vegetation is observed in general (Genç, 2001). However, hazelnut, corn, wheat, bean cultivation stems from the structural characteristics of the region and family continuity, while hazelnut ranks first among these plants. The most prominent agricultural product is hazelnut in the provinces of Düzce and its neighboring provinces Sakarya, Kocaeli, Bolu, Zonguldak, Bartın and Kastamonu. Hazelnut farming is carried out in the land of around 300,000 decares in this

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region and nearly 3 million farmers are living in hazelnut farming. With these figures, the region has a 40% share in Turkey hazelnut production area (Anonymous, 2011). Although the linden plant is not cultivated by being taken into the culture, it is consumed and traded by collecting from the plants in the garden of houses and forest areas.

At the point where the world is coming today, environmental awareness has ceased to be an ideal and has become a task for future generations. Mankind is mortgaging their next generation of lives at a great pace. For this reason, it is of great importance to educate people in order to gain correct behavior about the environment. Many problems are based on lack of education and insensitivity. Many problems related to the environment will be resolved, with the gain of environmental awareness to people (Kızılaslan, et al, 2005)

In addition to environmental awareness, the acquisition of farming awareness is of great importance. The acquisition of this awareness is intensified by the influence of visual and printed media. However, it was determined that the visual and printed media was rarely followed (40.2%) in the examined companies. 74.5% follow TV broadcasts, 14.9% follow brochures and 8.5% follow magazines among the Companies which are following visual and printed media.

We wanted to investigate the levels of awareness about the plants that the people of the region used or witnessed at different stages of their lives, except for the plants that they had traditionally cultivated. Considering the People's interest in medicinal and aromatic plants in developing Turkey, examining the potential in the region and measuring

the interest and knowledge of the people of the region will shed light on us.

Material and Methods

In this study, we investigated the knowledge of the 77 people who live in the Western Black Sea Region (Düzce, Sakarya, Zonguldak and Bartın) on medicinal and aromatic plants by direct interview method. Using the Neyman method, 77 people were surveyed about whether medicinal and aromatic plants are recognized, their usage conditions, whether medicinal and aromatic plants are organic, whether organic certification is needed and where they receive the information about medicinal and aromatic plants, the Likert scale was based and the results were evaluated by SPSS method. In our study, 77 people from different professions (farmers, civil servants, workers, retired, students and unemployed), different education levels (literacy, primary education, secondary education, high school and university) and different income levels were included in the survey. The survey was conducted by experts and participants were provided with answers to all questions.

Results and Discussion

In our study, we tried to answer the question of whether medicinal and aromatic plants may be alternative to hazelnut with the survey conducted in 77 people on different age, profession, education and income levels living in the Western Black Sea region.

Table 1. Where you live?

	#	%
Düzce	28	36,4
Sakarya	24	31,2
Zonguldak	14	18,2
Bartın	11	14,3
Total	77	100

In our study, 36,4% of the 77 people live in Düzce, 31,2% in Sakarya, 18,2% in Zonguldak and 14,3% in Bartın (Table 1).

Table 2. Your age?

	#	%
26-35	3	3,9
36-45	9	11,7
46-55	20	26,0
56-65	32	41,6
66-75	13	16,9
Total	77	100

41,6% of respondents are 56-65 years, 26% of the age 46-56 years, 16,9% in 66-75 age group, 15,6% is under 45. The average age is 54 (Table 2).

Table 3. Your job/profession?

	#	%
Farmer	52	67,5
Civil Servant	3	3,9
Worker	1	1,3
Retired	21	27,3
Total	77	100

In our study, 67.5% of the respondents are farmers and 27.3% are retirees. In total, 5.2% of workers and civil servants were included in the survey. A large part of the pensioner retired from the agricultural sector. Civil servants and workers also help agricultural workers in their families (Table 3).

Table 4. Education?

	#	%
Literacy	3	3,9
Primary Education	57	74,0
Secondary Education	7	9,1
High School	8	10,4
University	2	2,6
Total	77	100

When we look at the educational status of the majority of the farmers who participated in our survey, we see that 74% of them are primary school graduates. Only 2.6% are university graduates. The level of Education remains relatively low (Table 4).

Table 5. Social Security?

	#	%
Social Security Authority (SSK)	24	31,2
Government Retirement Fund (Emekli Sandığı)	4	5,2
Social Security Authority for Self-Employed (Bağ-Kur)	38	49,4
Agricultural Insurance	10	13,0
Uninsured	1	1,3
Total	77	100

It was observed that 49.4% of the farm members were self-employed thru Bağ-Kur. Only 1 person out of 77 people is uninsured (Table 5).

Table 6. In Which Chamber Are You Registered?

	#	%
Chamber of Agriculture	73	94,8
Craftsman's Association	4	5,2
Total	77	100

94.8% of 77 people surveyed have registered in the agricultural chamber (Table 6).

Table 7. Which one do you use when you get sick?

	#	%
Medicinal Plants	5	6,5
Drugs	50	64,9
Both	20	26,0
None	2	2,6
Total	77	100

Although 81% of the people in the Western Black Sea region where we carry out our survey are primary and secondary school graduates, they still turn to the drugs recommended by the doctor when they get sick. 64.9% of respondents prefer to use drugs only when they are sick, while 6.5% prefer to use medicinal herbs only. 26 %of them use both drugs and medicinal plants. As an alternative to the use of drugs, they use medicinal plants which are consumed as tea (Table 7).

Table 8. Are Medicinal and Aromatic Plants Organic?

	#	%
Yes	63	81,8
No	14	18,2
Total	77	100

In our survey conducted on 77 people, when asked whether the medical and aromatic plants are organic or not, 81,8% of 77 people have been deemed to think that medical plants are organic without certification is questioned (Table 8).

Table 9. How Do You Get Information About Medicinal and Aromatic Plants?

	#	%
TV (Visual Media)	4	5,2
Farmers	8	10,4
Engineers	27	35,1
All	38	49,4
Total	77	100

The people who participated in the survey have a wide range of information. TV, farmers, engineers are very useful to the public in acquiring information. In our study, the level of utilization of visual and printed media was 5.2% while in other studies 75% still obtains information from the media (Table 9).

Conclusion

In our research conducted on 77 people with a 54-year-old average in Duzce, Sakarya, Zonguldak and Bartın from the Western Black Sea region, we tried to measure the awareness of the medicinal and aromatic plants that are used in Alternative Medicine and that have become a part of our lives. 96.1% are literate and 96.4% are farmers and retirees in group of 77 people. Only one person is insured. It seems that there is a high awareness of the future here. Almost all farmers are registered in the agricultural chamber. Their goal is to reach the right information from engineers and people who are interested in agriculture. Although the use of visual and printed media in accessing information across Turkey reaches 75%, only 5.2% of the participants in our survey prefer visual media. The rest of the people are trying to get information from engineers or farmers dealing with this issue.

Although traditional medicinal and aromatic plants are in our lives, only 6.5% are trying to benefit from medicinal plants when they get sick. 26% of them are using medicinal plants in addition to drugs. 64.9% of them use medication under doctor's control.

There is a group of 81.8% who believe that medicinal and aromatic plants are organic. However, information on whether or not there is organic document is unfortunately low enough to say no.

Those who participate in the survey in the Western Black Sea Region who have high literacy and want to secure their lives have a sympathy for medicinal and aromatic plants, but they do not have enough and accurate information. Apart from the visual and printed media, the efforts to obtain information from farmers working on this issue are causing inaccurate or incomplete information.

In our study in the western Black Sea region, awareness can be increased by organizing informative meetings on medicinal and aromatic plants and directing them to cultivation and production in the region. With more extensive studies, the level of awareness about medicinal and aromatic plants for the region, orientations, problems and solutions should be examined.

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