



Bringing Lavander to Economy in Rural Development and Rural Tourism Scope

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Abstract

This Medical and aromatic plants that have been presented to people throughout history; was evaluated in different areas such as drug making, alcohol making, fragrance and oil essences. When medical and aromatic plants covers a very large area; In terms of plants species, In terms of active substance, and consumption areas. Currently, demand for herbal products in the pharmaceutical, cosmetic, perfumery and food sectors highlighted by the slogan 'return to nature' is more and more increasing. Despite this growing interest, most of the medical and aromatic plants in Turkey are collected from nature for export. While laurel, mahlep, linden flower, sage, rosemary are collected from the nature; Cumin, anise, thyme, cemen, fennel, mint and coriander are cultivated. The plants that are cultivated contribute both to the livelihood of the local people and to the country's economy. In recent years, Kuyucak village of Isparta which has been selected as pilot region in Turkey has begun production of lavender from aromatic plant groups. Kuyucak Village that is meets 93% of lavender production in Turkey spearhead at revival of rural tourism, the local people's income generation, the employment in the region and the entrepreneurial potential. The French-Provence region, taken as a role model in rural tourism, exemplified the people of Kuyucak. In this study, lavender cultivation can be done for tourism and development are determined in which rural areas, in Turkey conditions. In addition, by based on the annual tourist capacities of the regions, lavender cultivation tourism potentials have been calculated. Lavender cultivation tourism is an unforeseeable reality to be able to provide great contributions to rural tourism through such feasibility and pioneering development projects as well as being new in our country.

Keywords: Aromatic plant, Lavander, Lavander culturation, Rular tourism, Rular development

INTRODUCTION

Many plants have been used since ancient times for aromatic and medicinal purposes. Medicinal aromatic plants a valuable important role in economic, social, cultural and ecological aspects of local communities on the world [1]. Lavender (*Lavandula* spp.) is among the best-known of aromatics. Lavender owes its reputation to essential oils. Because lavender ingredients in essential oils uses in perfumes and other personal care products. Economically valuable essential oils are obtained from lavender flowers. The ratio of essential oil that cutting fresh lavender flowers ranges from 1 to 3%. Genuine lavender flowers should contain at least 1% essential oil [2].

There are more than 20 commercially important lavender cultivars, with climate and plant culture requirements varying among some of the major lavender types. But there are three main species within the genus producing lavender essential oil: *Lavandula angustifolia* (English lavender), *Lavandula latifolia* (spike lavender) and *Lavandula x intermedia* (lavandin) [3]. The essential oil yield of the lavender varieties varies between 4-8 kg / da.

Oil yield of the lavandin varieties is 3-5 times more than lavender varieties [4].

According to Department of agriculture, forestry and fisheries, English lavender (*L. angustifolia* Mill.) And lavandin (*L. intermedia* Emeric ex Loisel.) are the most cultivated species. On the world, the major producing areas of lavender oil are in Bulgaria, England, France, USSR, Yugoslavia, Australia, USA, Canada, South Africa, Tanzania, Italy and Spain. *Lavandula angustifolia* which is used in perfume essences is mainly cultivated in Europe, especially France. *Lavandula x intermedia* is mostly cultivated in Spain, France, Italy, the Balkan Peninsula, Australia and Tasmania. In recent years, Bulgaria has become a major producer. Main production of *Lavandula latifolia* is carried out in Spain. But *Lavandula latifolia* grows wild over a large part of the mediterranean area [4].

In the world, essential oil is exported between \$ 1.9-2.0 billion (USD) per year. Approximate cost of lavender oil consist of \$ 50 million of this amount. High-quality lavender oils below 0.5 percent are sold at over 100 euros per kilogram in world markets. Thus, lavender is one the most valuable aromatic plants. The major market in the world for essential oils is the United States, followed by Japan and Europe [5].

In the world, especially in the Provence-Alpes-Côte d'Azur region, lavender fields and productions have began to offers new routes for rural tourism and agro-tourism. Lavender is a symbolic representation of Provence. In 1994, Provence and natural resources through the "Lavender Roads" is opened to tourism within the scope of the recovery plan. Lavender Roads enabled to discovery Provence heritage and other nature resources such as villages, forests. Also, while these roads was creating, wine industry was not ignored. Thus, Lavender Roads have come to a strong position in terms of tourism. And rural development provided by using wine industry, lavender agriculture and Provence culture [7].

MATERIALS and METHODS

In this study, the rural areas where lavender agriculture were cultivated were determined and the potentials of these areas in terms of rural tourism were examined. Areas of lavender agriculture data obtained from web sites of 'Gelecekte Turizm' which is supported by United Nations Development Program (UNDP) and scientific studies on lavender agriculture. Data of tourists was obtained from Culture and Tourism Directorate.

To detect effect of lavender to tourism, the number of tourists who visited lavender gardens compared with the number of tourists who visited other touristic activity.

RESULTS and DISCUSSION

Lavender is a perennial bushy shrub growing 0,3 to 1,2m high. Most of lavenders originated in the Mediterranean basin, calcareous areas. But, in Turkey, *Lavandula angustifolia* Miller subsp. *angustifolia* and *Lavandula stoechas* L. subsp. *stoechas* is found in nature. Since *Lavandula angustifolia* which is commercial value high naturally grows a very small area: around İstanbul, lavender production and marketing is carried out by means of agriculture.

The first time in Turkey, in 1960, Kuyucak village of Isparta was began to cultivate lavender agriculture. In this research conducted, it was determined that Kuyucak Village meets 93% of lavender production in Turkey and today, Kuyucak, Aydoğmuş, Çukurören and Ardıçlı villages, produce about 2500 deceres lavadin (*L. intermedia* Super A) which is the most fruitful lavender species are cultivated. However, it was determined that since lavender oil contained more than 5 percent camphor, lavadin couldn't have been exported. It was seen that products of lavender

Table 1. Number of tourist who visited Isparta between 2010-2016

	2010	2011	2012	2013	2014	2015	2016
Domestic Tourist	150.418	211.200	233.273	306.401	321.163	334.686	353.096
Foreign tourist	17.246	19.937	14.202	21.089	21.837	19.757	14.144
Total	167.664	167.664	167.664	167.664	167.664	167.664	167.664

With 'Tourism in the Future' program which started in 2013, it was seen that the number of tourists visiting the Kuyucak Region had been increased. While 5000 tourists visited in 2014, 20 000 tourists visited during summer season in 2016. The number of tourists who visited Kuyucak created 5,44 % of the total number of tourists.

Except Isparta, cultivated agricultural area with lavender is located in Konya, Edirne, Eskişehir and Denizli. Lavender production was started in Konya in 2015. Initially, Lavender production carried out in 65 deceres areas. Thank to the Blacksea Women's Sustainable Development Council had launched a project for rural development, supported by the UN, EU and French Ministry of Agriculture, A project which aims to transform mountainous and arid areas into lavender fields started in Konya, in 2016. According to data of Konya Culture and Tourism Directorate, Konya was visited by 2.254.689 tourists in 2016. It was observed that culture and ecotourism was dominant. But, since lavender agriculture is a new practice, touristic activity related to lavender did not found.

In Edirne province, lavender agriculture is supported by Trakya Development Agency. Initially, 200 thousand lavender pods were planted in 2015. Lavender was harvested where they was in Trakya Agricultural Research Institute Directorate garden on June 14, 2017. According to report of Euromonitor International Which is the world's leading company to offer independent strategic market research, Edirne was ranked 61st among 100 cities which was Attracting the hightes tourists on the world. Except Edirne, İstanbul, Antalya and Muğla entered the top 100 cities. In 2016, Konya was visited by 3.190.400 tourists. In Edirne, touristic activity related to culture, ecotruzim, sport and sea tourism. Touristic activity related to lavender did not found. Based on three-year development plans.

In Eskişehir; 14 farmers started lavender farming 30 deceres areas in 2015. By 2016, this number had reached 80 deceres. The lavender agriculture in Eskisehir is carried out in Seyitgazi province. According to data of Eskişehir

were presented to the local markets in the region such as lavender honey, soap, jam, potpourri, pillow etc. At same time, These products are sold to tourist.

The village which was rural tourism opened thanks to 'Gelecekte Turizm' which was supported by United Nations Development Program (UNDP) pioneered rural development and tourism. It was detected that service was given tourists such as breakfasts, tour in lavender gardens, lavender oil expulsion, phaeton tours in lavender gardens, lavender scented village scenery combined with unique nature and walking to photo shooting points in the Kuyucak and its around which was rular development programme.

The total number of tourists who visited Isparta is 367.240 in 2016 (this data don't include excursionist). Highest tourist generating countries were France, Germany, United Kingdom, USA, People's Republic of China, Belgium, Italy, Azerbaijan, Netherlands, Japan, Russia, Australia to Isparta in 2016 (see Table-1).

Culture and Tourism Directorate, by december 2015, 594.794 tourist visited Eskişehir. It was detected that culture tourism, ecotourism and thermal tourism dominated in Eskişehir tourism.

In Denizli, lavender agriculture covers 150 deceres area with being built in Gözler in Pamukkale. Firstly, lavender cultivated in 30 deceres area in 2013. According to data of Food, Agriculture and Livestock Directorate, 8 tons lavender were produced in last year in Denizli. When Denizli is evaluated in terms of tourism; it was seen to have been widespread handicrafts, culture tourism, ecotourism, thermal tourism, congress tourism and sport tourism. Tourist capacity of Denizli was detected 1.875.000. At the same time, 'Tourism in the future' program supports ecotourism in Denizli.

CONCLUSION

Most cultures around the world, indigenous aromatic plants have been used their fragrance, flavouring and medicinal qualities. Therefore, aromatic plants are important production resource for mankind. Particularly recent year, the demand for aromatic plant production has increased in the Turkey. Production of lavender in Turkey has also started and production areas tend to increase. In Isparta province in Turkey, lavender culture has been traditionally produced for 40 years to produce essential oil. However there is no exports of manufactured lavender. Lavender production are sold local market. In 2013, thanks to 'Tourism in the future' program, lavender fields have started to be considered as a tourism item. Rural tourism opening of Kuyucak village where role model of France-Provence region was taken, provided income to local people. Although the project started a short time, the number of tourists who visited Kuyucak created 5,44 % of the total number of tourists. This data is the greatest proof of the success of the project. Thanks to Promotional and festivals can be increased the number of tourists. In addition, the selection of high efficiency products of newly planted products will open the way for export. So,

rural development will be provided. Raising the awareness of local people about tourism and production will help to choose new destination.

Province outside of Isparta are very new in lavender agriculture. Some province has not harvested yet. Thus these provinces can't be associated with lavender tourism. However, their potentials are suitable for lavender tourism. Especially Edirne has got same climate with neighboring Bulgaria and Bulgaria is the biggest lavender producer on the world. When barren land in Edirne assessed with lavender cultivation, It will be unavoidable that Turkey an important position in lavender exports. In addition, Edirne which ranked 61st in the world in terms of tourist capacity will range up higher that list.

Denizli has got tourist capacity for 1.875.000 and 'Tourism in the future' program has supports ecotourism in Denizli. The evaluation of lavender for rural tourism and other purposes will provide significant benefits to the development of the city. It is possible to say the same things for Eskişehir and Konya.

Briefly, extending of lavender cultivation in barren land will provide two-way income to the local people. Firstly, it must be pre-conditioned choice rate of camphor in lavender. Because High-quality lavender oils contained less % 5 percent camphor. Therefore, qualified products will find a market easily. The bargain will turn into an income source. In addition, As in the case of the Provence, lavender regions should be planned together with other tourist attractions such as heritage, nature resources, art etc. All these developments will ensure the development of the region. And they will reduce migration from rural to urban.

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