

DETERMINATION OF SOME OCCUPATIONAL AND SOCIOLOGICAL CHARACTERISTICS OF THRACIAN BEEKEEPERS

Trakya Arıcılarının Bazı Mesleki ve Sosyolojik Özelliklerinin Belirlenmesi

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Abstract: This survey was conducted to determine occupational and sociological structures of beekeepers in Thracian Region of Turkey. The data was obtained through interviews and questionnaires applied to 201 beekeepers distributed in 19 districts of the region. According to survey results, beekeepers have, on average, an age of 51, an educational background of 6 grades and their experience in beekeeping extends over a period of 11 years. 65.68 % of beekeepers are graduates from primary school, for 40.3 % of the beekeepers interviewed, experienced ones in the field constitute the main source of information and 29.3 % of beekeepers attended the course, 45.94 % of beekeepers need to be informed include combatting against bee diseases and pests. The survey reveals that 71.7 % of beekeepers in the region are farmers and 48.76 % of beekeepers are members of the agricultural chamber. 97.5 % of beekeepers are engaged in part-time beekeeping activity for subsistence and 90.1 % of all beekeepers are engaged stationary beekeeping.

Key Words: Thracian Region, Beekeeping, Beekeepers, Occupational and Sociological Characteristics

Özet: Bu envanter araştırması, Trakya Bölgesi'nde yer alan Edirne, Tekirdağ, Kırklareli, İstanbul ve Çanakkale illerine ait arıcıların mesleki ve sosyolojik yapılarının belirlenmesi amacıyla yürütülmüştür. Araştırmaya ilişkin veriler, söz konusu illerin bölge arıcılığında önemli yere sahip 19 ilçesindeki 201 arıcı ile gerçekleştirilen karşılıklı görüşme ve anket sonucunda derlenmiştir. Anket sonuçlarına göre, bölge arıcılarının yaş ortalamasının 51 olduğu görülmüş, ortalama 6 yıllık eğitim seviyesine ve 11 yıllık arıcılık deneyimine sahip oldukları belirlenmiştir. Arıcıların % 65.68'si ilkökul mezunu olup, % 40.3'ü bilgi kaynağı olarak deneyimli arıcılardan yararlanmış, % 29.3'ü de arıcılığı kurs aracılığı ile öğrenmiştir. Arıcıların % 45.94'ü hastalık-zararlılar ve bunlarla mücadeleye ilişkin bilgiye ihtiyaç duymaktadır. Görüşme yapılan arıcıların % 71.7'si çiftçi olup, % 48.76'sı Ziraat Odasına üyedir. Arıcıların % 97.5'i yarı zamanlı ve tüm arıcıların % 90.1'i de sabit arıcılık yapmaktadır.

Anahtar Kelimeler: Trakya Bölgesi, Arıcılık, Arıcılar, Mesleki ve Sosyolojik Özellikler

INTRODUCTION

An overall assessment of beekeeping in Turkey reveals that the Thracian Region has especially an important sunflower honey production potential in this respect (Anonymous, 1971). The Region is highly fit for beekeeping in terms of its geographical and climatically characteristics (Yaşar et al., 2002).

The provinces of this region had total of 132.605 honeybee colonies and 5.783 beekeepers. Beekeeping activity is realized in 826 villages in the region, totally (Anonymous, 2002). Every year nearly 5.000 beekeepers

come to Thracian Region from all regions of Anatolia at the time of flowering period of sunflower (*Helianthus annuus*), tree heath (*Erica ssp.*) and common heather (*Calluna vulgaris*). Bee colonies, honey and wax the produce obtained in this region is largely marketed (Doğaroğlu, 1992).

The region has, in geographical terms, its connections to the region of southern Marmara and other Thracian regions of neighbour countries of Bulgaria and Greece (Anonymous, 1971). In such plain areas as Meriç and Ergene plains, extensive sunflower (% 75 of total produce of Turkey) and other crops farming makes these

places very attractive for honey production (Doğaroğlu, 1992).

Yet, there is large gap of information and data regarding beekeeping in this region including such specific issues as the following: social and structural characteristics of beekeepers, ages and level of beekeepers, education and experience in beekeeping, educational situation of beekeepers, information and experience sources in beekeeping, topics on which beekeepers need information, main jobs situations of beekeepers, organizations of beekeepers, and characteristics of beekeeping enterprises and people employed in these enterprises of different locations of Thracian Region in Turkey (Yaşar et al., 2002).

The survey study thus envisages an assessment of such issues and existing sociological potential and suggestions on what can be done to further improve beekeeping in Thracian Region.

Some of survey studies on the sociological characteristics of beekeepers of different regions of Turkey were carried out by Settar (1966), Şekerden and Aydın (1986), Kumova and Özkütük (1988), Şahinler and Şahinler (1996), Cengiz and Genç (1999), Özbilgin et al. (1999), Savaş and Sıralı (2002), Yaşar et al. (2002) and Çakmak et al. (2003).

Therefore the main aim of the present study was to investigate the main occupational and sociological characteristics of beekeepers and characteristics on

beekeeping enterprises of these beekeepers of different locations of Thracian Region in Turkey.

MATERIAL AND METHODS

Materials

The survey covered 201 beekeeping enterprises existing in the 96 villages and 19 districts of the provinces Edirne, Tekirdağ, Kırklareli and Thracian parts of Istanbul and Çanakkale.

Methods

Data obtained from Provincial and District Directorates of Agriculture was useful in identifying locations having high potential in beekeeping and focusing on such locations. Data consists of figures obtained as a result of interviews conducted by the researcher with individual beekeeper (Yaşar et al., 2002).

The survey started with baseline information obtained from the Agricultural Directorates of Edirne, Tekirdağ, Kırklareli, Istanbul and Çanakkale on the number of hives and beekeeping enterprises in their respective provinces including districts (Özbilgin et al., 1999; Yaşar et al., 2002).

Following this, there were face-to-face interviews with 201 beekeepers in 96 villages (administratively attached to 19 districts in 5 provinces), which yielded the basic data of survey (Table 1).

Table 1. Number of districts and villages where questionnaires were given and the number of beekeepers interviewed

Provinces	Number of Districts Where Questionnaires Were Given	Number of Villages Where Questionnaires Were Given	Number of Beekeepers Interviewed
Edirne	4	8	33
Tekirdağ	9	53	105
Kırklareli	3	5	13
Istanbul	2	12	29
Çanakkale	1	8	21
Total	19	96	201

Since it would be too laborious and costly to cover all districts in each province, information from data of Directorates were used to select districts and villages where beekeeping was an important activity. Then beekeepers randomly encountered in these districts were interviewed. Information and data derived from these enterprises were first aggregated and evaluated at

provincial and than at regional level (Özbilgin et al., 1999; Yaşar et al., 2002).

The survey questionnaire given to beekeepers includes questions regarding the information and background of individual beekeeper, age, level of education, and their experience in beekeeping, educational situation of beekeepers, information and experience sources in

beekeeping, job status of beekeepers, organizations of beekeepers and some characteristics of beekeeping enterprises on migratory beekeeping.

Statistical analyses

While calculating regional averages, the method of weighted average was used. In this method, each individual data was multiplied by the weight of the corresponding province, which was the share of that specific province in regional total (Yıldız and Bircan, 1994; Özbilgin et al., 1999; Yaşar et al., 2002).

RESULTS AND DISCUSSION

Some social characteristics of beekeepers

The survey depicts such characteristics of beekeepers as age, level of education and experience in beekeeping, and data obtained on these characteristics are given in Table 2.

Table 2. Ages, level of education of beekeepers and their experience in beekeeping (years)

Provinces	Age	Education	Experience
Edirne	52	4	9
Tekirdağ	50	7	13
Kırklareli	57	5	10
Istanbul	50	5	8
Çanakkale	53	4	11
Average	51	6	11

Many beekeepers in the region are above age 50 (51 as regional average) while the younger beekeepers are observed in Tekirdağ and Istanbul. Also, the survey reveals that beekeepers have, on average, an educational background of 6 grades and their experience in beekeeping, again on average, extends over a period of 11 years.

The average age situation of beekeepers (51) of Thracian Region is higher than the average age value (48) of beekeepers of Black Sea Region of Turkey reported by Yaşar et al (2002). The finding regarding the average age of beekeepers (51) can be explained by the fact that the younger rural population move out to non-rural settlements and non-agricultural activities. The provinces of Tekirdağ and Istanbul have younger beekeepers, 50 on average.

Also, the survey reveals that beekeepers have, on average, an educational background of 6 grades and their experience in beekeeping, again on average, extends over a period of 11 years. Average values of these characteristics are lower than the average of educational level (8) and their experience in beekeeping (15) of beekeepers of Black Sea Region of Turkey reported by Yaşar et al (2002).

Educational situation of beekeepers

The survey depicts such characteristics number of beekeepers as educational situation, and data obtained on these characteristics are given in Table 3.

Table 3. Educational situation of beekeepers (%)

Provinces	Literate	Primary school	Middle school	High school	Vocational college	Faculty
Edirne	30.30	54.54	-	3.03	9.1	3.03
Tekirdağ	8.57	62.87	5.71	11.43	7.62	3.80
Kırklareli	7.69	92.31	-	-	-	-
Istanbul	6.90	82.75	3.45	3.45	3.45	-
Çanakkale	28.57	57.14	-	9.52	-	4.77
Average	13.93	65.68	3.48	7.96	5.97	2.98

65.68 % of beekeepers interviewed were graduated from primary school, 13.93 % of beekeepers are only literate, 7.96 % of beekeepers graduated from high school, 5.97 % of beekeepers graduated from vocational college, 3.48 % of beekeepers graduated from middle school and 2.98 % of beekeepers are graduated from different faculties.

The average value (65.68 %) of graduated from Primary school characteristic of beekeepers of Thracian region is

similar to the characteristic of beekeepers of Amasya (66.7 %) reported by Şekerden and Aydın (1986), but lower than average educational value of beekeepers of Çukurova Region (72.4 %) reported by Kumova and Özkütük (1988) and lower than average educational value of beekeepers of Hatay Province (82 %) reported by Şahinler and Şahinler (1996).

The obtained results of educational situation characteristics of beekeepers show that the beekeepers from the Tekirdağ province have more different and

expressive of this character compared to those beekeepers from the other provinces of Thracian Region (Table 3).

Table 4. Status of beekeepers in access to sources of information (%)

Provinces	Beekeeping Course	Books+ Periodicals	Tv+Radio+ Film	Experienced Beekeepers	Official Institutions
Edirne	48.5	21.2	-	30.3	-
Tekirdağ	25.7	20.0	3.8	40.0	10.5
Kırklareli	38.5	7.6	-	38.5	15.4
Istanbul	17.2	17.2	-	55.3	10.3
Çanakkale	28.6	28.6	-	38.0	4.8
Average	29.3	19.9	2.0	40.3	8.5

Information and experience sources in beekeeping

The survey depicts such characteristics of beekeepers as experience sources in beekeeping, and data obtained on these characteristics are given in Table 4.

For 40.3 % of the beekeepers interviewed, experienced ones in the field constitute the main source of information. 29.3 % of beekeepers attended the course, 19.9 % refer to books and journals in apiculture, 8.5 %

apply to government organizations for information and 2.0 % follow relevant radio-TV programs and films.

The average value of experienced beekeepers characteristic (40.3 %) of beekeepers of Thracian region is lower than average values of this characteristic of beekeepers of Aegean Region (49 %) reported by Özbilgin et al. (1999) and than average value of beekeepers of Black Sea Region (63.72 %) reported by Yaşar et al. (2002).

Table 5. Topics on which beekeepers need information (%)

Provinces	Diseases and How to Combat	Upkeep and Feeding	General
Edirne	51.51	18.19	30.30
Tekirdağ	45.71	36.19	18.10
Kırklareli	41.18	41.18	17.64
Istanbul	41.38	34.48	24.14
Çanakkale	47.61	38.09	14.30
Average	45.94	33.51	20.55

Specific headings in which beekeepers need to be informed include general breeding techniques (20.55 %), care and feeding (33.51 %) and combat against bee diseases and pests (45.94 %). Important part of beekeepers covered by the survey state that they are not satisfied with their present sources of information. The average values of diseases and how to combat (45.94 %) and upkeep and feeding (33.51 %) characteristics of beekeepers of Thracian region is higher than average values of Black Sea Region (14.78 % and 20.80 %), but average value of general characteristic (20.55 %) is

lower than average value (65.42 %) of Black Sea Region reported by Yaşar et al. (2002).

The beekeepers of the region are reaching relevant information by sharing experiences with each other (Table 4). Beekeepers cannot reach literature where they can catch up with advances in the field and cannot benefit from the services of extension organizations, since such organizations lack experienced field extensions.

Mobilizing extension agents, who would involve the beekeepers in practical fieldwork implementations, would help to solve this problem (Table 5).

Characteristics of job status of beekeepers: The survey depicts such characteristics of beekeepers as job

status of beekeepers, and data obtained on these characteristics is given are Table 6.

Table 6. Main job situations of beekeepers (%)

Provinces	Farmer	Clerk	Tradesman	Worker	Retired
Edirne	81.9	12.1	3.0	3.0	-
Tekirdağ	62.0	13.0	12.0	9.0	4.0
Kırklareli	69.2	7.7	7.7	15.4	-
Istanbul	93.2	3.4	-	3.4	-
Çanakkale	76.1	14.3	4.8	4.8	-
Average	71.7	11.3	7.7	7.2	2.1

71.7 % of beekeepers in the region are farmers, 11.3 % of beekeepers are clerks in the different official institutions, 7.7 % of beekeepers are tradesmen, 7.2 % are workers in different works and 2.1 % of beekeepers are retired.

71.7 % of beekeepers in the Thracian region are farmer, 28.3 % of beekeepers have different jobs or retired. Those beekeepers may have such other jobs or occupations as teaching, religious services, government employment or self-employed businessman. But for the

majority, other activities are also agricultural (mainly sunflower and wheat farming and other crop culture as rice, sugar beet, tomato, watermelon, squash, melon, onion, etc.). The average value of farmer characteristic (71.7 %) of beekeepers of Thracian region is higher than average value of beekeepers of Marmara Region (16 %) reported by Çakmak et al. (2003).

Characteristics on organizations of beekeepers

Information relating to the organization of beekeepers is given in Table 7 below.

Table 7. Data on the organizational status of beekeepers in the region (%)

Provinces	Agricultural Cooperatives	Beekeeping Cooperatives	Agricultural Chamber	Agricultural Credit Cooperatives	No Membership
Edirne	6.06	-	66.67	9.09	18.18
Tekirdağ	8.57	4.76	42.86	11.43	32.38
Kırklareli	15.38	-	38.46	23.08	23.08
Istanbul	20.69	-	51.73	17.24	10.34
Çanakkale	-	-	52.38	23.81	23.81
Average	9.45	2.49	48.76	13.93	25.37

48.76 % of beekeepers interviewed are members of the agricultural chamber, 25.37 % of beekeepers have not membership, 13.93 % of beekeepers are members of the agricultural credit cooperatives, 9.45 % of beekeepers are members of the agricultural cooperatives while membership in beekeeping cooperative cover only 2.49 % of beekeepers.

The beekeepers of the region are not organized. Neither of different organizations of beekeepers brings any significant benefit for beekeepers. This membership,

however, include attachment to such other organizations as Agricultural Credit Cooperatives, Agricultural Chamber and Agricultural Cooperatives that are not directly related to beekeeping (Table 7). Low membership is the main reason for the ineffectiveness of the existing beekeeping cooperatives.

Characteristics on beekeeping enterprises

The survey depicts such characteristics on beekeeping enterprises of Thracian beekeepers, and data obtained on these characteristics are given in Table 8.

Table 8. Characteristics of part time and full time enterprises of beekeepers (%)

Provinces	Full-time beekeepers	Part-time beekeepers
Edirne	-	100.0
Tekirdağ	4.8	95.2
Kırklareli	-	100.0
Istanbul	-	100.0
Çanakkale	-	100.0
Average	2.5	97.5

As regional average, 2.5 percent of beekeepers in the region devote their full time to beekeeping. Tekirdağ is the province where the share of full time beekeepers is only high (4.8 %). Edirne, Kırklareli, Istanbul and Çanakkale come to the fore, on the other hand, as the provinces where beekeepers are also engaged in some other activities as well (100 %).

As can be inferred from Table 8, 2.5 % of beekeeping enterprises in the region are engaged in full-time and 97.5 % of beekeeping enterprises are in part-time beekeeping activity for subsistence. This full time activity reaches 4.8 % in Tekirdağ.

The average value (2.5 %) of full-time beekeepers characteristic of beekeepers of Thracian region is lower than this characteristic of beekeepers of Aegean Region (79 %) reported by Özbilgin et al. (1999) and the average value of beekeepers of Black Sea Region (% 34.07) reported by Yaşar et al. (2002). But the average value (97.5 %) of part time beekeepers of this region is higher than the beekeepers of Aegean Region (21 %) reported by Özbilgin et al. (1999) and the average value of beekeepers of Black Sea Region (% 65.93) reported by Yaşar et al. (2002).

Table 9. Characteristics of migratory and stationary enterprises of beekeepers (%)

Provinces	Migratory Beekeepers	Short distance Migratory beekeepers	Stationary beekeepers
Edirne	-	3.0	97.0
Tekirdağ	2.8	3.8	93.4
Kırklareli	15.4	46.2	38.4
Istanbul	3.4	6.9	89.7
Çanakkale	-	4.8	95.2
Average	2.9	7.0	90.1

Although an overwhelming majority (15.4 %) of beekeepers in Kırklareli is engaged in migratory beekeeping, the regional average is much lower (2.9 %). 46.2 of beekeepers in Kırklareli is engaged in short distance migratory beekeeping, the regional average is lower (7.0 %). The factor pulling down the average is mainly the beekeepers of Edirne, Tekirdağ, Istanbul and Çanakkale where 97.0 %, 93.4 %, 89.7 % and 95.2 % of beekeepers are not mobile. 2.9 % of beekeepers are engaged in mobile beekeeping. Higher percentage of migratory beekeeping is 15.4 % in Kırklareli. 7.0 % of

beekeepers are engaged in short distance migratory beekeeping. Higher percentage of short distance migratory beekeeping is 46.2 % in Kırklareli. 90.1 % of all beekeepers are engaged stationary beekeeping. The average values of migratory and short distance migratory beekeepers (2.9 % and 7.0 %) of Thracian region is lower than the beekeepers of Aegean Region (82 % and 18 %) reported by Özbilgin et al. (1999) and the average values of beekeepers of Black Sea Region (61 % and 39 %) reported by Yaşar et al. (2002).

CONCLUSION

Among the provinces of the Thracian region, Edirne, Tekirdağ and Kırklareli rank very important in terms of some occupational and sociological characteristics of beekeepers. This mainly derives from the fact that beekeeping has a longer tradition in the provinces and that farmers have more free time after sunflower and wheat culture and harvest, which take relatively shorter time than other crops.

Major problems of occupational and sociological structure of beekeepers in the region include age and level of education and experience in beekeeping, information and experience sources in beekeeping, migratory beekeeping, and lack of knowledge and organizational situation of beekeepers in many aspect of beekeeping.

These priority characteristics need to be solved to improve structure of beekeeping and sociological status of beekeepers in the region. For beekeepers to solve some problems on their own, awareness must be developed among them about the need for regional and strong organizations such as associations or cooperatives on the beekeeping. In order to solve these problems, migratory beekeeping should be planned, limited to some areas with a map, beekeepers should have easy access to bee books and journals, be trained on the diagnosis and treatment of honeybee diseases and technical beekeeping. Beekeepers should have a route for migratory beekeeping areas that should be prepared and distributed to beekeepers by Ministry of Agriculture in Turkey.

In spite of some problems on sociological structure of regional beekeeping of Thrace, however, all beekeepers in the region state they are generally content with their occupation. The fact can be taken as a sign of their important preferences and expectations in beekeeping.

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