

FRENCH AND ROMANIAN ORGANIC APICULTURAL ENTERPRISES: A COMPARATIVE ANALYSIS

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Abstract. The aim of the present study is to identify similarities and differences between French and Romanian organic apicultural enterprises regarding the legal status and age of the enterprise, number of honeybee colonies, distribution channels, types of organic bee products sold, profitability, export of products and certain socio-demographic characteristics of their owners. The results of the study reveal that organic apicultural enterprises from the two countries are similar regarding the legal status, the age of the enterprise and their profitability. The French and Romanian apicultural enterprises differ to a certain extent regarding the number of honeybee colonies, the distribution channels, the products sold, the export of bee products and the socio-demographic characteristics of their owners. The paper shows that organic apicultural enterprises are profitable, even though they have different strategies, according to the market characteristics specific to each country.

Keywords: export, distribution channels, organic bee products, profitability

INTRODUCTION

The organic beekeeping sector is a dynamic one and represents an opportunity for beekeepers to increase their revenues. Certified organic products can bring higher incomes to farmers and can serve as promoters for climate-friendly farming practices worldwide (Scialabba and Müller-Lindenlauf, 2010). Organic farming is considered to be the future of sustainable agriculture (Madelrieux and Alavoine-Mornas, 2013). Organic agricultural systems are capable of growing foods with high quality standards (Lairon and Huber, 2014). Consumers buy organic food because they expect that it is healthier than food from non-organic production and because of environmental concerns (Zagata, 2012). Pino et al. (2012) show different determinants of the intention to purchase organic food: regular consumers purchase organic food based on ethical motivations, while food safety concerns influence the purchase intentions of occasional consumers. In the European Union, a considerable number of farmers cease organic production each year (Läpple, 2012). Farmers' reasons to revert to conventional farming are classified into economic motives, difficulties regarding certification and control, problems with organic production techniques and farms' macro environment (Sahm et al., 2013).

Analysing the French beekeeping sector, in 2014, honey production was of only 10.000 tonnes, as compared to 20.000 tonnes in 2011. The number of hives is relatively stable with 1.3 million hives in 2014 and approximately 70.000 beekeepers (Girard, 2015). Organic beekeeping is one of the most dynamic sectors of organic farming in this country. In 2013, there were 484 beekeepers that practiced organic beekeeping and 89.875 organic hives (French Agency for Development and Promotion of Organic Farming, 2014).

In Romania, honey production in 2014 was of 16.000 tonnes. In the same year, there were 36.000 beekeepers at national level and 1.47 million honeybee colonies

(Romanian Beekeepers' Association, 2015). The first certified organic beekeeping producers were recorded in 2000, and they were 132 in 2005 and 584 in 2008. In 2013, over 1.200 beekeepers practicing organic apiculture were registered (Romanian Beekeepers' Association, 2015). In 2013, the total organic honey production was of 3.650 tonnes. In the most productive years, about 3.000-3.500 tonnes of organic honey are obtained. In 2014, there were nearly 90.000 organic honey bee colonies (Romanian Beekeepers' Association, 2015).

MATERIAL AND METHODS

Data were collected by means of an email survey from July until October 2014. A structured questionnaire was sent by e-mail to the owners of 1300 apicultural enterprises from France and 1300 apicultural enterprises from Romania. A number of 63 valid responses were obtained from organic apicultural enterprises in France and 73 valid responses from organic apicultural enterprises in Romania. The data were analysed using SPSS statistical program v. 19. The questionnaire covered personal data of the owner-manager such as gender, age, education, beekeeping experience. It also included questions related to the apiary size (number of honeybee colonies), the legal status of the firm, the age of the apicultural enterprise, the type of products sold and the distribution channels. Moreover, the owners of the organic apicultural enterprises were asked if they export bee products and if their enterprise is profitable. Profitability was measured using the question: "Is the enterprise profitable or does it operate at a loss?" and the export of bee products using the question: "Do you export bee products?" In order to reduce the rate of withdrawals from organic farming, knowledge about these farms is required (Läpple, 2012). Therefore, the purpose of the present study is to compare the organic apicultural enterprises from two European countries. A comparative analysis between French and Romanian organic apicultural enterprises is undertaken regarding the legal status and age of the enterprise, number of honeybee colonies, distribution channels, types of organic bee products sold, profitability, export of products and certain socio-demographic characteristics of their owners.

RESULTS AND DISCUSSIONS

Comparing the organic apicultural enterprises from the two countries, the results reveal that most of the apicultural enterprises are sole proprietorship both in France (85.7%) and in Romania (56.2%) (Table 1). 14.3% of apicultural enterprises in France and 15.1% in Romania are private limited companies. In Romania, 5.5% of the enterprises under study are family enterprises. Analysing the age of the organic apicultural enterprises, a similarity between the two countries can be observed, as the majority of enterprises in France (58.7%) and in Romania (67.1%) have between 3-10 years old. As for the size of the apiary, most of the organic French enterprises (52.4%) have less than 50 honeybee colonies; while in Romania the majority of the apiaries (35.6%) have between 51-100 honeybee colonies. 19.2% of Romanian organic beekeeping enterprises and 9.5% of French organic beekeeping enterprises have over 200 honeybee colonies. In general, organic beekeepers manage more colonies than conventional beekeepers (Garibay, 2011).

Regarding the distribution channels used, there are similarities and differences between the two countries. A similar percentage is found regarding the sale to friends and

acquaintances (90.5% in France and 84.9% in Romania). The direct purchase of honey from the beekeeper is the most used distribution channel in other European Union countries as well (Pidek, 2002). Selling to the local market is more used by the French apicultural enterprises (58.7%) and selling in specialized shops is preferred by Romanian apicultural enterprises (50.7%).

Table 1

Characteristics of organic apicultural enterprises from France and Romania

Variables		France (%)	Romania (%)
Legal status of the enterprise	Sole Proprietorship	85.7	56.2
	Individual enterprise	-	23.3
	Family enterprise	-	5.5
	Private limited company	14.3	15.1
Age of the enterprise	< 3 years	17.5	9.6
	3-10 years	58.7	67.1
	11-20 years	7.9	17.8
	21-30 years	7.9	5.5
	31-40 years	6.3	-
	> 40 years	1.6	-
No. of honeybee colonies	0 honeybee colonies	-	6.8
	< 50 honeybee colonies	52.4	4.1
	51-100 honeybee colonies	15.9	35.6
	101-150 honeybee colonies	11.1	17.8
	151-200 honeybee colonies	11.1	16.4
	> 200 honeybee colonies	9.5	19.2
Distribution channels*	Selling to friends and acquaintances	90.5	84.9
	Selling to the local market	58.7	31.5
	Selling in specialized shops	30.2	50.7
	Selling in one's own shop	22.2	17.8
	Selling to processors	1.6	43.8
	Selling to retail chains	1.6	11.0
	Online	25.4	28.8
	Honey	98.4	95.3
Type of bee products sold*	Pollen	42.9	74.0
	Propolis	49.2	87.7
	Royal jelly	22.2	38.4
	Wax	47.6	71.2
	Venom	4.8	11.0
	Packages	23.8	43.8
	Queens	12.7	32.9
	Honeycombs	9.5	32.9
	Beekeeping equipment	1.6	9.6

*Multiple responses, percentage of respondents who said "Yes". Source: own calculations based on the survey

Selling in one's own shop is similarly used by the French (22.2%) and the Romanian (17.8%) enterprises. A significant difference relies in the fact that a much higher percentage of Romanian beekeepers (43.8%) sell to processors, as compared to French beekeepers (1.6%). French apicultural enterprises do not sell their products to processors for export as much as Romanian apicultural enterprises because in France the consumption of bee products is higher than the national production (Albouy and Le Conte, 2014). Analysing the organic bee products sold, it can be observed that organic honey is sold by the majority of enterprises from both countries, 98.4% in France and 95.3% in Romania. According to Garibay (2011), the demand of organic honey at European level is very high. All the other products are sold by both French and Romanian enterprises in different percentages, revealing that organic apicultural enterprises from both countries adopt the

product diversification strategy. Market opportunity and resource access were found to be important factors in the farm diversification decision making process (Northcote and Alonso, 2011).

As regards profitability, 74.6% of the French enterprises recorded a profit during the past 3 years and a similar percentage (77.3%) was found in the case of Romanian apicultural enterprises. The significant number of organic apicultural enterprises that registered a profit emphasises the fact that there are chances for the organic apiculture in both countries to continue its development. In a study undertaken by Madelrieux and Alavoine-Mornas (2013), farmers claimed they would have liked to carry on in organic farming if their activity had been more profitable. Differences between the two countries are found regarding the export of bee products, as only 12.7% of the French enterprises export bee products, as compared to the Romanian apicultural enterprises that export bee products to a greater extent (45.2%). Romanian organic honey is exported up to 80% in EU countries, mainly to Germany and Spain (Romanian Beekeepers' Association, 2015). In France, the national honey production is insufficient to cover the needs of the internal market, which is 40.000 tonnes of honey per year, or 650 grams per person. As 400 tonnes of honey are exported each year, France imports about 26.000 tonnes of honey annually (Albouy and Le Conte, 2014). The socio-demographic characteristics of the owners of the apicultural enterprises are presented in Table 2. In France, the owners of the apicultural enterprises are equally ranked within two age groups: 25-34 years old and 35-44 years old (28.6%). In Romania, the majority of the owners (50.7%) are between 35-44 years old. As regards gender, the results show the fact that 84.1% of the French owners and 89.0% of Romanian owners are men. The majority of them have higher education qualifications in both countries: 72.6% in Romania and 61.9% in France. In Romania, most of the owners have between 11-20 years of experience in beekeeping and there is no owner whose experience in beekeeping is under 3 years. In France, the majority of owners (42.9%) have between 3-10 years of experience in beekeeping.

Table 2

Socio-demographic characteristics of the owners of organic apicultural enterprises

Variables		France (%)	Romania (%)
Age (years)	18-24	15.9	2.7
	25-34	28.6	12.3
	35-44	28.6	50.7
	45-54	20.6	19.2
	55-64	6.3	13.7
	> 64	15.9	1.4
Gender	Male	84.1	89.0
	Female	15.9	11.0
Experience in beekeeping (years)	< 3	14.3	-
	3-10	42.9	35.6
	11-20	20.6	43.8
	21-30	14.3	15.1
	31-40	4.8	5.5
	> 40	3.2	-
Education	Secondary school	3.2	-
	Vocational school	9.5	2.7
	High school	11.1	17.8
	Post high school	14.3	6.8
	Higher education	61.9	72.6

Source: own calculations based on the survey

CONCLUSIONS

The results of the study reveal that French and Romanian apicultural enterprises are similar concerning the legal status of the enterprise, age of the enterprise and profitability. Organic apicultural enterprises from the two countries differ to some extent with regard to the number of honeybee colonies, the products sold, the distribution channels used, export of bee products and the socio-demographic characteristics of their owners. Even though there are differences between the two countries regarding these aspects, apicultural enterprises from both countries are profitable. The study reveals the fact that the practice of organic apiculture does not constrain the enterprises to implement a specific market strategy, but each enterprise can choose its own strategy regarding the type of organic bee products sold or the distribution channels and be profitable all the same. Organic apicultural enterprises can be profitable even if they have different characteristics and market strategies.

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