

ANALYSIS OF PROPOLIS MARKET IN NORTH –WEST ROMANIAN REGION

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Abstract. Beekeeping is traditional in Romania and represents a source to supply the family income. Many bee products are used for their nutritional value and therapeutically effects. This study was focused to evaluate the profile of Transylvanian beekeeper by quantitative and qualitative methods: investigation and focus-group. The results showed two main profiles: the traditional beekeeper and the modern beekeeper, each one with specific characteristics. Propolis is a bee product known and used by consumers and financial data regarding its profitability were also evaluated. Recommendations regarding the choice of a good propolis tincture are mentioned.

Keywords: propolis, Transylvania, financial data.

INTRODUCTION

Beekeeping is an important occupation in Romania and especially in Transylvania due to area's richness in melliferous plants and high tradition in this field. Through the diversity of bee products and their high biological value, beekeeping covers the beekeeper's family needs for bee products and supplies an extra income source. But the challenge of this sector lies in diversity of production conditions and yields and by the dispersion and variety of producers and traders (CE 917/2004, CE 1484/2004, CE 797/2004, CE 1221/1998). In European honey market there is an imbalance between supply and demand. Therefore, in order to improve the production and quality of bee products Member States of European Union established national programs comprising technical assistance, measures to control varroasis and related diseases, a rationalization of transhumance, the management of regional beekeeping centers and cooperation on research programs to improve the quality of honey (CE 917/2004, CE 1484/2004, CE 797/2004, CE 1221/1998). In these programs a special focus was given to supplement the statistical data on the agricultural sector, covering production, marketing and price formation in apiculture.

This article is aiming to identify the main profile of beekeepers from North-Western Romania and simultaneously evaluate their interest in producing other bee products than honey, especially propolis.

MATERIAL AND METHOD

The study was realized on 290 subjects (beekeepers) belonging to North-West Region of Romania. This region covers the following counties: Bihor, Bistrița Năsăud, Cluj, Maramureș, Satu Mare and Sălaj. In Table 1 the distribution of beekeepers' share in the study according to apiary hearth.

Technico-economical analysis of beekeeping in North-West region of Romania (in Transylvania) was performed quantitatively and qualitatively using investigation method and focus-group.

Table 1.

The distribution of beekeepers in the studied region

County	Beekeepers in the study (%)
Bihor	18%
Bistrița Năsăud	14%
Cluj	20%
Maramureș	18%
Satu Mare	14%
Sălaj	16%

RESULTS AND DISCUSSION

The stratification of beekeepers was performed according to the number of bee colonies behold by beekeeper (Table 2). According to European Union standards only a small amount (9%) of beekeepers from this region can be considered to be professional beekeepers. The most apiaries are small to medium sized (49%) having between 11 and 50 bee colonies in the same apiary.

Table 2.

Evaluation of size of the apiaries taken into study

Number of bee colonies behold by the same beekeeper	Beekeepers (%)
Maximum 10	11
11-50	49
51-80	21
81-150	10
Minimum 150	9

According to the answers given by beekeepers, nowadays there is a favorable economical opportunity for beekeeping. The main factors identified by beekeepers which contribute positively to beekeeping development lately are:

- European and Romanian financial support program for beekeeping during 2007-2013;
- constant increase of honey consumption and other bee products by local costumers;
- good marketplace in North-West region;
- great melliferous potential of the North-West area.

Statistical data from EU (Sec. Report CCE, 2004) pointed out the lowest consume habit of honey in Romania (below 200g/man/year). Therefore most of honey production is sold in EU countries (Germany, Spain and Italy).

Another important aspect of this study was production yield evaluation of primary and secondary products obtained by beekeepers during 2009-2010. Unfortunately, only about 50% of beekeepers get involved in delivering other beeproducts except honey. Propolis was closely evaluated in this study due to its widespread use in traditional medicine and frequent use by costumers. In 2009 51% of beekeepers produced propolis and in 2010 it was 48%. There are positive correlations between beekeepers's experience and propolis production yield. Therefore, beekeepers with higher experience (over 15 years) are keener to produce propolis then younger beekeepers. Also beekeepers with higher apiary size have larger propolis yields and sometimes they have specialized tools for propolis collection (propolis traps), which lead to better propolis quality.

This research presented two profiles of beekeepers-producers.

- **Traditional beekeeper:** older beekeepers with high experience. Their beekeeping business started in communist period and had a slow development with periods of increase and decrease (mountaigne – russe like). They developed their essential theoretical and practical knowledge in time, continuously improving their skills. They involved the entire family in beekeeping practice and are more likely to leave the business to next generations. European and Romanian financial grants meant a great deal for them, allowing to increase production yield, to focus more on diversification of bee products, to update their equipments and eventually, for those interested to start producing eco.
- **New beekeeper:** young and old beekeepers which started beekeeping 3-4 years ago and they still need to learn the essentials of this occupation, and of course they have a small apiary. For many of these beekeepers the extra help from financial governmental programs was an important factor to start the business.

Average yield of propolis was 2492g in 2009 and 2102g in 2010. The possible explanation for production decrease in 2010 was due to highly unfavorable climatic conditions for beekeeping in this year, and as a consequence all bee products yield were negatively affected. The more drastic decrease was sensed by older beekeepers which do not perform migratory beekeeping. The financial data realized in the time frame 2009-2010 for propolis is available in Table 3.

Table 3.

Propolis financial data

Year	Average of production yield/apiary (g)	Sales of propolis/ apiary (g)	Average price (lei/g)	Average sum obtained /apiary (lei)
2009	2492	1162	0,22	252
2010	2102	771	0,25	190

Most frequently the beekeepers sell their products by direct commercialization on open market (30% of them) and about 27% sell their products to intermediary organisms which will further deliver these products. Due to its widespread knowledge about therapeutically effects propolis is constantly bought and sought by consumers. Although the price is high compared to honey, this bee product will always have its own place on the market.

A lot of products made from or containing propolis are available on the market (more than 20): alcoholic tincture, mixtures of various bee products, countless ointments with propolis and plant extracts, vitamin C with propolis. Each producer has more or less variations on the same receipt. Education of consumer to choose the right product for most beneficial effect is mandatory. Research studies performed in our laboratories on propolis tinctures from the market show that proper evaluation of their quality is necessary. Due to its high value on market some beekeepers are tempted to increase their income by unfair means. In case of propolis tinctures acquired from pharmacy our recommendations to consumer is to check the label for propolis quantity – it should be 30 % and the concentration of alcohol used for tincture preparation – not less than 70°.

CONCLUSIONS

The honey marketing in Romania is still developing; consumers are beginning to increase their interest in natural products due to health reasons. Other bee products are starting to catch the interest of beekeepers especially in the years with bad climatic conditions for honey production. Any other bee product is more profitable then honey if consumers know the products and their use. Educational programs could help in increasing awareness of consumers for beneficial effects of bee products like propolis, pollen and royal jelly.

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