

## THE EVOLUTION OF HONEY PRODUCTION IN ROMANIA BETWEEN 2000 AND 2011

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### Abstract

*In many European Union countries, the beekeeping sector is in decline due to the decrease of the agricultural land areas, pesticides and bee diseases. However, there are countries where honey production is augmenting. Romania is among the countries where honey production has considerably increased over the last decade. The scope of this paper is to show the honey production evolution in Romania between 2000 and 2011 and is based on the statistics provided by the Ministry of Agriculture, Forests and Rural Development. The data has been produced with the help of following metrics and indicators: the number of beekeepers, the number of bee families, honey consumption, honey price and honey production. During the mentioned period, the total number of bees has grown continuously with a maximum for 2011 at 1.2 million of bee families. Honey production also increased from 11.746 tons for the year 2000 to 24.700 tons for 2011. Therefore we can conclude that Romania is among the countries with a well-developed beekeeping industry, due to several factors: the high number of bee families available for farming, the quantity and quality of honey production, the diversity of bee farming and the results of scientific research and human resources' level of work qualification.*

**Key words:** evolution, honey production, Romania

### INTRODUCTION

Beekeeping or apiculture is one the oldest traditional fields of Romanian agriculture, with a great heritage and historical roots, demonstrated by numerous historical findings and folklore sources that show the continuity of the practice in this geographical area of the country [7]. Romania holds a key role in European and worldwide honey production, due to the high quality and so the export demand keeps increasing [1]. In this context the current paper highlights an analysis of honey production evolution in Romania with the objective to show the evolution of beehives and total honey production during the period of 2000-2011.

### MATERIAL AND METHODS

To highlight the honey production evolution we use the following indicators: bee numbers, beehives total, honey production and consumption per individual and the current status of Romania on the EU and WW market.

The data has been provided by the National Institute of Statistics, Year 2012 for the period 2000-2011 [10]. In this purpose the statistical data provided by National Institute for Statistics have been collected and processed using index, share and comparison methods, and finally the results were tabled and interpreted. All calculation is based on the methodology specific for this market research.

### RESULTS AND DISCUSSIONS

Nationwide there are over 40.000 beekeepers with a total numbers of bee families over 1.1 million. The main counties to host bee farming are: Vâlcea, Mureș, Arad and Bihor [8]. Romania is on the 7<sup>th</sup> European place by bee totals with 1.2 million beehives, while before 1989 this number was about 1.4 million [9].

In 2011 the honey production in Romania was of 21.000 tons while the pollen production was of about 50-60 tons and propolis production of 25-30 tons. Starting with year 2000 the numbers of beekeepers has grown

continuously reaching 40.000 in 2011. In the same year the honey production per bee family was 18.5 kg per bee, twice as much as of 1990, this being a major factor in the honey production increase [11].

In 2007 Romania had produced with 90% more than in 1990. Starting with year 2000, the number of bee families has grown exponentially and in 2011 the total number had doubled due to the support policies, active through The National Program for Rural Development, and also through The National Beekeeping Program. But despite the increase in bee numbers, the loss of thousands of bee hives every year has to be mentioned [2].

The accession of Romania to the European Union transformed Romania into an important competitor for the other developing countries that produce honey. The financial help for beekeepers through the National Beekeeping Program and the positive climatic conditions that allow the economic exploitation of large numbers of bees, have determined a good increase in the beehives number during 2000 – 2011. (Table 1)

Table 1. The evolution of bee numbers in Romania between 2000 – 2011

Year	Bee number
2000	614,000
2001	649,000
2002	745,000
2003	781,000
2004	840,000
2005	888,000
2006	888,200
2007	891,043
2008	982,368
2009	998,000
2010	1.057,186
2011	1,274,917

Source: Faostat

Starting with year 2000, the number of bee families has grown exponentially and by 2011 the total number had doubled.

The apiary size varies from a beekeeper to another and from a region to another. In Romania, apiary size is relatively small compared to other countries. It varies from 20 to 400 bee families, with an average of 23 units, because most of the apiaries have a small number of bee families [3].

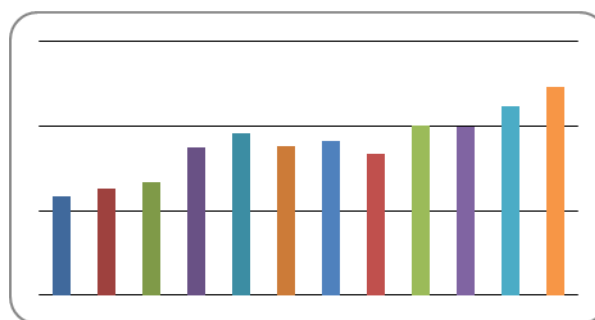
Honey production in Romania has increased during the mentioned period with a constant growth from 11.746 tons in 2000 to 24.700 in 2011. The time period with the highest increase in value was between 2008 and 2011 due to the financial support from the EU and the development programs that were implemented. (Table 2)

Table 2. Honey production in Romania between 2000 – 2011

Year	Honey production (t)
2000	11,746
2001	12,598
2002	13,434
2003	17,409
2004	19,150
2005	17,704
2006	18,195
2007	16,767
2008	20,037
2009	19,937
2010	22,350
2011	24,700

Source: Faostat

In 2011 Romania held the 17<sup>th</sup> place among top honey producers with a production of 25.000 tons. Table 2 shows the evolution of honey production between 2000 – 2011, with the highlight that the year 2011 had a growth of 78% since 2000.



Source: Faostat

Fig.1.Evolution of honey production in Romania between 2000 – 2011

The growth in quantity is due not only to the development through the National Beekeeping Program, but also to the increasing number of bee families, the implementation of corresponding beekeeping technologies, the use of selected bee queens able to develop strong families, to assure better pickings and to fill combs with honey,

the making of treatments just in time, preparing bee families for winter better and assuring good picking opportunities both stationary and in pastoral [4]. Another strong point for Romanian bee farmers is the diversity of honey and related products, from acacia honey, linden or mixed flowers to forest honey. In addition, in the recent years, some beekeepers have turned to organic honey which gives it a special quality.

The production growth year by year is also reflected in the export trade of Romania, which raised in the year 2011 to 29.6 million euros. Romania exports 80% of the honey eco-production in top markets like Germany and the Nordic countries.

The average price of honey varies from year to year depending on demand and offer market variation. When the honey production is lower then of course the price is higher than in more productive years. The prices for Romanian honey are determined by the export demand.

Table 3. Honey price in Romania between 2000 – 2011

Year	Honey price (USD/t)
2000	1,840.4
2001	1,923.3
2002	2,521.4
2003	3,734.7
2004	4,036.5
2005	4,252.3
2006	4,150.2
2007	4,924.8
2008	5,256.3
2009	4,851.9
2010	5,085.1
2011	6,207.2

Source: Faostat

About 60% of production is for export with prices ranging from 2.4 – 3.5 Euro per kilo, depending on the honey type (acacia or mixed), with main markets in Germany, UK and Italy. During 2000 - 2011 the price of honey increased from 1.841 USD/ton to 6.207 USD/ton.

The honey consumption also increased during this period. Average honey consumption per individual in Romania is very small in comparison with other countries from Western Europe. In 1990, honey consumption was 50 gr per inhabitant, but today it reached

0.60 kg. Taking into account that honey is a natural product, rich in nutrients, biostimulators and antioxidants, it has important prophylactic and therapeutically properties, it's recommended to be consumed by all ages in different amounts. It is obvious that if Romanians would consume honey at the level recommended by nutritionists, domestic honey production would be insufficient. Because, in general, Romanians are not accustomed to consume too much honey, about 60% of domestic production is exported mainly in the EU countries where demand is very high [5].



Photo 1. Romanian beekeeper

**Romania's place on the international honey market**

- In the year 2000 Romania had exported 7.510 tons of honey, while in 2011 the export was of 9.900 tons. Imported honey value decreased from 137.000 tons in 2000 to about 25.000 tons in 2011. This makes the balance trade to be positive and Romania to be a net exporter of honey.

In 2011 Romania has contributed with 5.7% to European honey exports and 1.5% worldwide. In the same year the honey import of Romania 0.008 from the worldwide total [6]. While international honey production had a steady decline between 2000–2011, reaching in 2007 a 15% decrease than year 2000, honey production in Europe increased by 10.8 %. But the most dynamic growth, of 72 %, was achieved by Romania in the same period, reflecting its potential as a top honey producer.

**Honey balance of trade** - Despite that Romania is a honey producing and exporting country, in the last years it also imported honey. In 2011 its import accounted for

25.000 tons. Domestic market is negatively influenced by the fact that import growth is higher than export growth. However the honey trade balance is still a positive one, as we can observe in Table 4.

Table 4. Honey balance of trade between 2000-2011

Year	Honey import (t)	Honey export (t)
2000	137	7,501
2001	506	6,862
2002	739	5,784
2003	232	9,633
2004	52	8,757
2005	21	6,632
2006	63	9,606
2007	315	6,255
2008	777	7,087
2009	515.5	10,654
2010	222	11,016
2011	25	9,898

Source: MADR

## CONCLUSIONS

Beekeeping is an important sector contributing to the increase of agricultural production and keepers income, to the reduction of unemployment among rural population, to a better coverage of consumption and a better trade balance. Honey production increased because of a higher number of bee families and a higher productivity, modern technologies applied, a more efficient honey chain: production, collection, processing, embottling, labeling, packaging, marketing on the domestic and foreign market.

Romania has a high potential in producing honey because its traditional in beekeeping longer than 2,000 years and for the favorable geographical conditions. Romania is an important honey producer in Europe and in the world. Beekeeping has become an attractive sector in agriculture mainly for people living in the rural areas. For this reason the number of beekeeping has increased.

Beekeeping requires unification and alignment quality production standards and the national standards. Given the natural conditions differentiated from European countries, the major manufacturers will significantly influence the production of honey in the EU.

It's honey production represent 6.28% of the UE production and 1.9% of world honey

production. Because of its high quality, Romanian honey is more and more required on the external market and mainly on the UE market. Honey is highly acclaimed Romanian foreign markets, but is valued at a low price because honey external processors offer low prices that do not cover the costs of beekeeping, the preferred wholesale acquisition system Beekeepers Association. The largest markets for Romanian honey are found in Europe, Germany absorbing around 60% of Romania's exports of honey. Most of the production of honey is for small private producers, some of them being under the protection of processors or trade associations, or scrolling through supply contracts with them.

The main directions which should contribute to the further development of beekeeping are: genetic improvement and production of selected queens, maintaining genetic heritage, extending bee resources, production diversification and increase of honey quality, strengthening of beekeepers associations to become effective professional organizations

## REFERENCES

- [1]Beldescu, A., Dumitrescu, M.J., Smion, M., 2010, Romania's Export Potential. Honey. Romanian Center for Trade and Foreign Investment Promotion
- [2]Dobre, T., 2011, Village Life Magazin No. 2, January 2011
- [3]Popescu Agatha, 2010, Study upon the Economic Efficiency of Romania's Honey Foreign Trade, Scientific Papers Series D, Zootehnics, Faculty of Animal Science Bucharest, Vol. LIII, p.176-182
- [4]Popescu Agatha, Guresoiaie, I., 2003, Study on a high performance integrated Beekeeping Technology, JCEA, Vol.4(2):153 -160
- [5]Popescu Agatha, 2006, Study upon honey market in the E.U. countries, Bulletin of USAMV Cluj-Napoca, Zootehnics and Biotechnology, No.62, p.215
- [6]Pîrvuțoiu, I., Popescu Agatha, 2011, Analysis of Romania's Honey Market, București [http://ro.wikipedia.org/wiki/Apicultura\\_%C3%AEn\\_Rom%C3%A2nia](http://ro.wikipedia.org/wiki/Apicultura_%C3%AEn_Rom%C3%A2nia)
- [8] [www.apidava.ro/despre\\_noi\\_cifre.php](http://www.apidava.ro/despre_noi_cifre.php)
- [9] [www.madr.ro](http://www.madr.ro)
- [10] [www.insse.ro](http://www.insse.ro)
- [11]National Program for Rural Development2007-2013, March 2012