

ANALYSIS OF THE STATUS AND PROBLEMS FOR THE DEVELOPMENT OF BEEKEEPING IN BULGARIA

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Abstract

The present study is aimed at analysing the status, potential and problems in the development of beekeeping. The need for the study stems from the fact that despite the great opportunity for the development of beekeeping, which the country has had in recent years, the sector is not only not developing but is also facing a catastrophe. The main hypothesis is that beekeeping in Bulgaria, despite the good natural conditions for development, is far from its potential. Hence the main goal of the study. To identify the main reason or factor stopping the development of beekeeping. From the conducted research, we have reason to assert that the most significant factor influencing the development of beekeeping is the profitability of the bee colony. Since the low profitability in this case results from the adoption of poor legislative policies by the state and the EU, which are detrimental to beekeeping. The decisive role for the development of beekeeping remains in the hands of the state and the European administration and their legal and financial policies aimed at the sector.

Key words: state of beekeeping, honey production, beekeeping problems, honey trade

INTRODUCTION

The history of beekeeping in our lands begins long before the founding of the First Bulgarian State. According to various sources, the Slavs collected honey from nature long before the founding of the First Bulgarian State, and later, with the help of the skills of the Proto-Bulgarians, they began to cultivate the process. At a later stage, beekeeping developed as one of the main crafts in the First Bulgarian State. Even then, due to the good qualities of Bulgarian honey, it was an object of trade with other kingdoms and trade centers such as Byzantium, Genoa, etc. (Basheva-Nikolova H., 2023) [3]. This is one of the few crafts that has survived through the centuries and is still practiced today. This livelihood still contributes to the socio-economic and sustainable development of rural areas.

Over the years, the beekeeping sector of Bulgaria has been the subject of various research institutions and authors of scientific publications, such as the Bulgarian Academy of Sciences (BAS), the Ministry of Agriculture and Food (MAF) (MAF, 2024) [10], the Institute of Animal Sciences Kostinbrod and

Troyan and researchers such as Simova (2007), Hristov (2016), Angelov (2017), Borisov (2020), Lyubenov (2020a and b), Garabedian (2023), Stanev (2018) [14, 7, 2, 4, 8, 9, 6, 13]. Their opinions, findings and conclusions are presented in various reports and articles. But their focus, besides being the subject of previous years and periods, also covered other aspects of beekeeping in Bulgaria. In Romania, researchers such as: Pirvutoiu and Popescu (2011), Popescu (2013), Chiurciu et al. (2024), etc pointed out the status of beekeeping and its performance and challenges [11, 12, 5].

The present study is specifically aimed at identifying the causes of the negative trends that have arisen in recent years in the beekeeping sector in Bulgaria, looking for possibilities for overcoming them and optimizing the state of the sector in this country.

The research thesis is that beekeeping in Bulgaria is very well equipped with natural and climatic conditions, but has not yet developed its full potential in Bulgarian conditions.

The aim of the study is to identify the problems and challenges hindering the development of beekeeping in Bulgaria and to propose

opportunities and solutions for optimizing the state of the sector.

To achieve the goal, the following tasks are set:

- To monitor and analyze the state of the beekeeping sector;
- To identify and analyze the main commercial practices in the sale of honey;
- To establish the external influence on the state of the sector;
- To derive solutions and recommendations for optimizing the development of beekeeping in Bulgaria.

MATERIALS AND METHODS

For the purposes of the study, primary and secondary sources of information were used. Primary sources are official documents, reports, statistical and analytical materials of the Ministry of Agriculture.

Secondary sources of information are scientific publications and interviews conducted with beekeepers and honey buyers and chairmen of beekeeping associations, on site and by telephone.

Traditional methods of scientific research were used: generally scientific - historical and logical; logical-theoretical - analysis, synthesis, comparison, induction, deduction.

During the course of the research, numerous operating beekeeping farms, beekeeping companies, markets and shops were visited and interviewed, with the aim of obtaining first-hand opinions from people on the ground who face the challenges of the sector every day. We were interested in learning about their views on good and bad government policies, so that they could be used by us as well. Meetings were held with traders and representatives of honey processing plants in Bulgaria, who are also the main buyers. All these conversations, shared experiences and accumulated impressions helped to achieve the results presented in the study.

RESULTS AND DISCUSSIONS

Prerequisites for the development of beekeeping in Bulgaria

The geographical location of Bulgaria and the very well-preserved ecosystem predispose the

development of beekeeping in the country. About 25% of the territory is mountainous and semi-mountainous, combined with more than 1,100 species of pollinating plants, which are a source of an extremely diverse palette of pollen and nectar (Hristov, 2016) [7]. Taking into account the climate, the natural conditions of the country are some of the most suitable for raising bee colonies and producing high-quality ecological honey. The honeydew and nectar honey produced in Bulgaria is distinguished by its exceptionally high taste and healing properties. In addition to the incredible aroma, taste and smell, the biological value is also due to the bouquet of nutrients - 18 types of amino acids, enzymes, vitamins A, C, E, K, B1, B2, B3, B5, B6, B7, B9, trace elements (calcium, phosphorus, magnesium, chromium, etc.), natural antibiotic substances (Angelov, 2017) [2]. Due to these qualities, Bulgarian honey is a signature product for Bulgaria and finds a place in some of the most demanding markets in the world.

Despite the unique conditions for the development of beekeeping, the state of the sector remains far from its potential. The density of beekeeping farms in Bulgaria is not well balanced and is almost half of its possible capacity. According to a study by Simova (2007) [14], taking into account the ecological and geographical characteristics of the country, it is possible to increase the number of bee colonies almost twice and reach 1.3 million bee colonies.

According to the division of the country by statistical regions (NUTS 2), in 2023, there were 194,658 bee colonies in the North-Eastern region, 186,672 in the North-Central region, 124,633 in the North-Western region, 174,163 in the South-Eastern region, 96,557 in the South-Central region, and the least populated region was the South-Western region with 39,990 (Figure 1). As it can be seen from the data above, the difference between the regions of Northern Bulgaria and Southern Bulgaria is large, 505,963 to 310,710, almost half, and between the region with the most and the fewest bee colonies, the ratio is 5 to 1. Which is a great loss for the country and the population, considering the contribution of the

honey bee to the ecosystem, economy, and food security (Yordanova, 2023) [15].

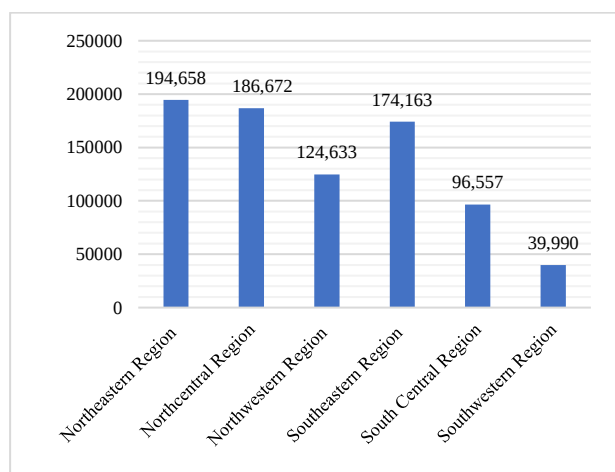


Fig. 1. Distribution of beekeeping farms by region for 2023.

Source: Based on data from the Directorate of Agrostatistics at the Ministry of Agriculture and food [10].

More bee colonies mean more plants, forests, higher crop yields, more employment for rural communities, economic contribution to processors and traders, increased Gross Domestic Product and many other contributions to the country.

Good practices from the EU and Bulgaria for the development of beekeeping

A good example of stimulating the development of the sector by the state and the European Union (EU) can be found by going back 13 years in time. With the help of the EU and the Ministry of Agriculture, bee colonies increased from 529,117 in 2012 to 867,561 in 2019. Honey production has also increased significantly from 9,186 tons to 11,518 tons (Table 1) and in 7 years with the right policies, the beekeeping sector managed to develop and increase bee colonies by 64% and honey production by 25%.

Table 1. Main indicators in the beekeeping sector for the period 2012 - 2019

Year	2012	2013	2014	2015	2016	2017	2018	2019
Number of bee farms	19,283	17,185	16,143	17,969	15,306	13,431	12,260	13,771
Number of bee colonies	529,117	541,564	577,304	747,434	754,105	765,772	783,348	867,561
Honey produced (tons)	9,186	10,065	9,268	11,388	10,218	11,388	10,388	11,518

Source: Based on data from the Directorate of Agrostatistics at the Ministry of Agriculture and food [10].

With Bulgaria's entry into the EU, new horizons are opening up for Bulgarian beekeeping. In addition to the huge European market, the sector, as a priority policy, is financed under various headings and is subject to various interventions by the state and the EU.

The sector receives support through various measures from:

- Rural Development Program (RDP). Registered beekeeping farms can use financial resources from the RDP 2014-2020, the most attractive measures for the sector are:
- Measure - 4. Investments in tangible assets,
- Measure 6. Development of the economy and economic activity,
- Measure 9. Establishment of groups and organizations of producers,
- Measure 11. Organic farming,
- Measure 16. Cooperation.

For the period from 2014 to the end of 2019, a total of 74.85 million BGN were absorbed under the measures of the RDP 2014-2020, with the largest share being measure 11 with 65 million BGN.

- The National Beekeeping Program (NBP) funds the sector for three years. Four such programs were implemented for the period 2008-2019. Financial resources in Bulgarian beekeeping from the implementation of the NBP from 2008-2019 are 74% of the financial resources provided, i.e. 40.4 million BGN out of 54.6 million BGN. Financial assistance is provided for investments, costs or projects in the following areas - measures: technical assistance for beekeepers and beekeeping associations; medicines to combat varroa; measures to support laboratories carrying out physico-chemical analysis of honey; measures to support the renewal of beehives in the

Community; cooperation with specialized bodies for the practical implementation of applied research programs in the field of beekeeping.

-Beekeeping farms can also benefit from state aid under the de minimis scheme (minimum aid) on the basis of Regulation (EU) No. 1408/2013. It is granted to support in dealing with unstable climatic conditions, to compensate for part of the costs of raising bee colonies and for their destruction as a result of plant protection measures (chemical spraying). In addition to sector financing measures, the EU has also established a mechanism to maintain markets within the Union (Borisov P. H., 2020) [4]. The EU Common Organization of Agricultural Markets aims to stabilize them, ensure a better standard of living for the population employed in the agricultural sector, and offer quality and safe food at affordable prices. It covers market support measures, regulatory measures related to the quality control of agricultural products, recognition of producer organizations, issuance of quotas, duties and import and export licenses, etc. Market measures are key instruments of the CAP and play the role of a "safety net" in conditions of market instability. Market instability poses a threat to the sustainable development of beekeeping, which can prevent the achievement of effective management of production resources (Borisov, 2020) [4]. Other good practices from the EU and the State are Bulgarian and international exhibitions, fairs, promotional campaigns to advertise and increase the recognition of Bulgarian bee products. Such as the campaign launched in schools in 2017, with the support of Bulgarian beekeepers, "Honey Breakfast" under the motto: "Eat honey, be healthy!". These initiatives, in addition to advertising, also help build brands and direct marketing of Bulgarian bee products (Lyubenov, 2020) [8, 9]. National agricultural policies are important for expanding the scope of communication policies of beekeeping farms at the national and international level. They improve the recognition of Bulgarian bee products, as well

as the opportunities for entering new markets and expanding and preserving old ones.

As can be seen from the data presented above, with appropriate policies from the EU and the state, investing in the sector is yielding results and Bulgarian beekeeping has managed to develop to levels it has not reached in many years.

The state of the beekeeping sector in recent years

➤ Beekeeping

The negative trends in Bulgarian beekeeping began at the end of 2019. Since the beginning of 2020, there has been a decline in interest in the sector, which has been on the rise for the past seven years. In one year, 2019/2020, beekeeping farms decreased by 15.6%.

In the following years, the decline continues, albeit at a lower rate (Figure 2): 7.1% for 2020/2021, 5.3% for 2021/2022, 7.7% for 2022/2023 and 5.4% for 2023/2024. For the period under review, by counting, 4,848 beekeeping owners have ceased operations or 35% compared to 2019. This is more than a third of beekeepers in Bulgaria, according to the Ministry of Agriculture, and a decline of at least 5% is expected for 2025. These data are, to put it mildly, worrying, especially the sustainability of the process and the speed at which it is happening.

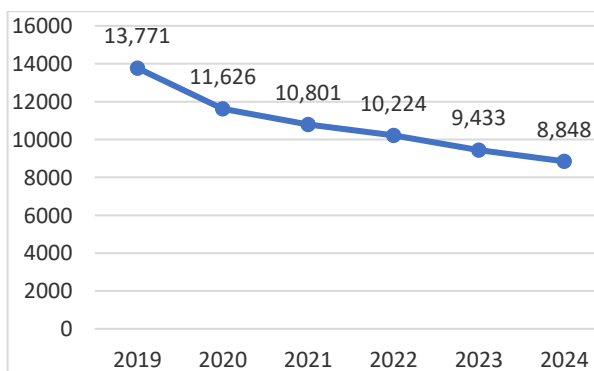


Fig. 2. Number of beekeeping farms in recent years
Source: Based on data from the Directorate of Agrostatistics at the Ministry of Agriculture and food [10].

If we take as an example, neighboring Romania with an area of 238,397 km², by 2022 its beekeepers are 32,277, compared to 2019 they have an increase of 39.4% (Chiurciu et al., 2024) [5]. On the other hand, Bulgaria with an area of 110,994 km² and 10,224 beekeepers by

2022 and with a permanent decline of 34% compared to 2019. Romania is only twice as large in area but with three times more beekeepers and with an upward development trend, unlike Bulgaria which has fewer beekeepers compared to its area and with a negative development trend.

➤ Bee colonies

When reviewing this indicator in Figure 3, it is seen that its condition is significantly better than the previous one.

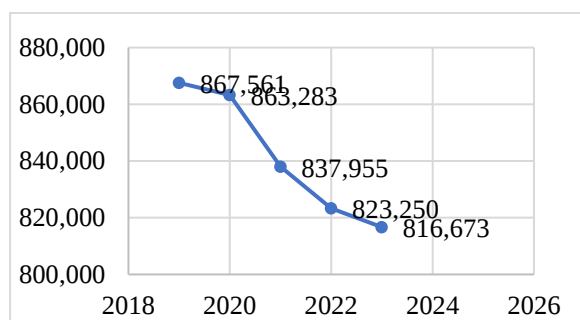


Fig. 3. Number of bee colonies in recent years

Source: According to data from the Directorate of Agrostatistics at the Ministry of Agriculture and food [10].

Here for 2019/2020 the decline in bee colonies is 0.5%, but for the next year 2020/2021 the decline in bee colonies reaches 2.9%, for 2021/2022 it is 1.8%, for 2022/2023 it is 0.8% for the period under review bee colonies have decreased by 6.3% compared to 2019. The predicted decline for 2024 is about 3%.

Logically, with the decrease in bee colonies, the colonies from which honey is extracted also decrease (Table 2). From 702,851 bee colonies from which honey was extracted in 2019, they decreased to 659,002 in 2023, by 43,849 colonies or by 6.6% in 5 years.

➤ Honey produced

The results of honey production managed to remain relatively good. The sector's honey production for 2019 was 11,518 tons, in 2020

there was a significant drop to 9,066 tons, but in the remaining years the honey extracted ranged from 11,638 tons to 11,944 tons, see Table 2.

Table 2. Bee colonies from which honey was extracted and their production for the period 2019 - 2023.

Indicators	Number of bee colonies from which honey was extracted	Produced honey (tons)
2019	702,851	11,518
2020	680,266	9,066
2021	672,163	11,638
2022	665,020	11,944
2023	659,002	11,189

Source: According to data from the Agrostatistics Directorate at the Ministry of Agriculture and food [10].

Against the background of the decreased production units, this is a good achievement for those employed in the sector. If we take the average yield of bee colonies that vary between the lowest yield of 13.3 kg. in 2020, and the highest in 2022 with 17.9 kg., we will get an average yield of 15.6 kg. for the five years.

➤ Structure of bee farms

The only indicator with a permanent positive trend is the average number of bee families per farm, for 2024 it is 93.9 bee families per farm, compared to 2019 the average number of families per farm is 63, for 2020 it is 74.3, for 2021 the number is already 77.6, and for 2022 it is 80.5. and for 2023 it is 86.6. The increase in the average number is mainly due to the increase in farms with over 150 hives, they are the only segment of the structure of bee farms that has increased by 16.1% compared to 2019, at the expense of the other three groups that have decreased their share of the total number of bee farms in the country (Table 3). In order to understand the level of consolidation of beekeeping farms, data was extracted from the results in Romania, where the average number of families for 2022 is 73, in our country it is 80.5, and for the EU this number is only 29.

Table 3. Structure of beekeeping farms for the period 2019 - 2024

Structure of beekeeping farms	Bee colonies					
	2019	2020	2021	2022	2023	2024
From 1 to 9	1.2%	1.2%	0.7%	0.7%	0.5%	0.4%
From 10 to 49	15.1%	10.6%	11.2%	9.6%	9%	7.3%
From 50 to 149	43.3%	44.5%	41.4%	36.2%	34%	35.4%
150 and above	40.4%	43.7%	46.7%	53.5%	56.5%	56.8%
Average number of bee colonies per farm	63	74.3	77.6	80.5	86.6	93.9

Source: According to data from the Agrostatistics Directorate at the Ministry of Agriculture and food [10].

As can be seen from Table 3, the consolidation of farms is a sustainable process, which turns an increasing number of those employed in beekeeping from a source of additional income into a main activity. Beekeeping farms are increasingly taking on the form of professional and commercial enterprises.

It leads to the thought that the Bulgarian beekeeper has become convinced of the advantages of large-scale production and perhaps the moment is approaching when we will be ripe for unification into strong cooperatives in the beekeeping sector.

➤ The sale of honey

The main source of income for beekeeping farms is the sale of honey (Lyubenov L., 2020) [8, 9]. Due to the low purchase prices in recent years, the most significant problems and dissatisfaction in beekeeping come from the low profitability in the sector.

In this section, we will briefly introduce the prices and sale of honey in Bulgaria.

According to some authors and institutions, the trade of honey in Bulgaria is carried out mainly through four channels.

- ✓ Direct sales to end consumers;
- ✓ Direct sales to retailers;

- ✓ Sales to processing plants;
- ✓ Sales to industry;
- ✓ For own consumption and feeding of bees.

But according to the beekeepers participating in the study, honey is sold mainly through three channels. As for the two groups "Sales to processing plants" and "Sales to industry", for them there is only one - Sales to wholesalers.

In practice, over the years, the following groups have emerged as the structure of the distribution of honey produced (Table 4).

The share of sales in the group "Direct sales to end consumers" for the period under review ranged from 15.4% to 23.8%, with their trend increasing.

This means that the share of short sales chains, producer-consumer, is increasing, which is what we all strive for, with this sales channel all the added value remains in the hands of the producer.

According to data from the Ministry of Agriculture, the average price for the period is 8.04 BGN, with an upward trend and the highest value being 8.96 for 2023, according to data from the Ministry of Agriculture [10].

Table 4. Distribution structure of produced honey

Distribution of honey produced	2019	2020	2021	2022	2023	2024
Direct sales to end users	15.4%	19.8%	16.7%	17.8%	23.8%	21.5%
Direct sales to retailers	2.6%	4.9%	2.3%	3.8%	4.8%	4.5%
Direct sales to wholesalers	36.3%	60.3%	50.4%	41.4%	57.1%	74%
For own consumption and feeding of bees	13.5%	15%	13.2%	12%	14.2%	0%
In stock	32%	0%	17.4%	25%	0%	0%

Source: According to data from the Agrostistics Directorate at the Ministry of Agriculture and food [10].

The smallest share of all sales channels is sales to retailers, where the percentage varies from 2.3% to 4.9% in 2020.

Prices are slightly lower than those in direct sales, but the quantities in a transaction are larger, in most cases ranging from 100 kg to 500 kg.

For the period, the highest price is in 2023, 8.45 BGN. and the lowest 5.90 BGN. in 2020.

The main channel for honey sales, on which profitability in the sector depends, is sales to wholesalers.

The share of these sales varies from 36% in 2019, when, due to beekeepers' refusal to sell due to low purchase prices, nearly 32% of the year's production remained in warehouses, to 74% in 2024, with full sales of the honey produced in 2024.

As can be seen from the sales made through this channel, most of the sector's production passes through it.

The bad thing in this case is that the price at which it is purchased is too low, well below the cost of the honey produced.

For 2023, the average price between organic and conventional honey according to the Ministry of Agriculture is 4.36 leva, for 2024 the price is even lower, 4.23 leva.

This negative trend has been going on for years, which is detrimental to the sector.

At first glance, the stated selling prices in the first two channels do not seem low.

But let us not forget that in order for these sales to happen, the producer must have gone through the investments/costs not only in production, but also in processing, packaging, logistics and trade, which costs not only money but also time, which not everyone has at their disposal.

Due to these circumstances, the main part of the honey produced goes through wholesalers (Angelov, 2024) [1].

According to the study, the following companies stood out as some of the most significant buyers of honey for Bulgaria: "YOT

GI VAL BULGARIA" OOD - Targovishte, Apimel OOD - Rakovski, Apitrade - Plovdiv, RAM Commerce OOD - Maslarevo.

Over the years, the prices offered by these traders have differed to some extent from those indicated by the Ministry of Agriculture, in a negative direction.

Against the backdrop of the general increase in commodity prices and double-digit inflation in the country in recent years, honey prices are not only not stagnant but have also fallen by about 30%.

From Table 5, it is clearly seen that prices are steadily decreasing for all four companies.

For conventional honey for 2024, the average price among the four buyers is 3.9 leva or 2 euros, for organic honey the price is 4.4 or 2.20 euros.

The low purchase prices come mainly from the decline in prices at the European level and uncontrolled imports into the EU.

Table 5. Purchase prices of honey in BGN/kg

Wholesale honey buyers	October 2022		October 2023.		December2024		decline in %	
	conventional	organic	conventional	organic	conventional	Organic	conventional	organic
"YOT GI VAL BULGARIA" EOOD, city of Targovishte	5.5 .	6.5 .	4	4.5	3.8	4.5	-31%	-31%
Apimel EOOD, town of Rakovski	5.2 .	6.2.	3.9	4.5 .	4	4.6	-24%	-26%
RAM Commerce Ltd. Maslarevo village	5 .	6.	3.8	4.3	3.8	4.3	-24%	-29%
Apitrade, city of Plovdiv	5.5	6.3	3.9	4	4 .	4.5.	-28%	-29%

Source: Own calculations, Based on data from honey traders.

Note: Euro 1= 1.94 BGN, 23 April 2025.

Challenges facing beekeeping in Bulgaria

After reviewing data and results from reports and analytical documents from various authors and institutions, we listened to and analyzed the opinions of people on the ground (beekeepers, traders and experts from various institutions) who face problems in the sector on a daily basis, and we united around the following significant problems in the beekeeping sector: Strong competition at the international level; Rising costs of all kinds; Problems with spraying to combat plant pests; High mortality of bee colonies from diseases and aggressors in beehives; Deteriorating environment, climate and too many forage

crops and lack of grazing; Lack of financial capital, Low level of competence, Small bee farms, but **the most significant according to everyone is the profitability and profitability of beekeeping.** And as stated above, the main source of income is the sale of honey. The income received from the sale of honey depends on two components, the amount of honey and the price at which it is sold. From what has been stated so far, it can be seen that the average yield from a bee colony varies plus or minus one to two kilograms up or down, for a relatively normal year without cataclysms. Which means that a down option, or to say in a bad year, in a farm of 100 bee families, the

yield will be 100 to 200 kg. less. This is not good, but on an annual basis it will not be of great importance. The situation is similar in a good year, with an increase of 100, 200 kg., it is good, but it is not of great importance. This is actually a variation in the yield by 5% to 10% up or down. But in terms of price, **the margin is significantly greater**, on the one hand the value of money is reduced by double-digit inflation, on the other hand the price itself is reduced by 30%, which is detrimental to beekeeping in Bulgaria.

If we do a quick calculation, as we said above, the average number of bee colonies in a farm for 2024 is 94, the average honey yield per hive is 15kg. Or the yield of an average farm is 1,410kg. at a price of honey of 3.9 BGN is 5,499 BGN, annual turnover. This profitability would cause a smile if the situation were not tragic, because in Bulgaria every registered beekeeper pays insurance. For 2024, the insurance of a beekeeper is about 350 BGN per month (compared to 2019, the monthly insurance is 95 BGN) or 4,200 BGN per year. If we subtract 4,200 BGN from the annual turnover, 1,300 BGN remains. disposable income and when other expenses are added and taking into account that a large part of the farms have under 90 hives, the account will certainly have a negative balance. **There is no other issue as significant as profitability** that has such an impact on the sector. It is no coincidence that, according to beekeeping companies, there will be many bankruptcies in the sector. Most beekeepers say that they did not give up the craft only because of their love for beekeeping. Also, many of them have contracts under various programs and are subject to sanctions in the event of cessation of activity, but these incomes will not last long.

External factors influencing beekeeping

Despite the benefits of honey consumption and its accessibility in Bulgaria, its consumption remains very low, about 0.3/0.4 kg. per person per year, compared to Germany's consumption of 1.1 kg. For this reason, production covers demand 100 percent and about 60%/70% of the honey produced is export-oriented. Globally, Bulgaria, despite its small size, has about 2% of the world's honey exports, which range from 300,000 tons to 400,000 tons. The largest

producer is China, followed by the USA and Argentina, but as a union the EU is the second largest producer and the largest importer in the world. Every year the EU has a production deficit of about 150,000t. to 200,000t. which it imports from third countries. The problem is that there is a conflict of policies, on the one hand the EU strives, **as a priority, to increase the income of agricultural producers, on the other hand to reduce the prices of food products**. Which leads to confusion and imbalance in markets and production.

In Slovenia, there is a minimum price of honey of 10 euros, while honey is imported from China at 1.29 euros/kg. Imports from Ukraine are at 1.74 euros/kg, from Russia it is even cheaper at 1.42 euros/kg, on which there are many trade restrictions due to the war, but honey is traded. In 2023, the imported quantity from Ukraine is 45,822 tons, from China – 60,177 tons, and from Argentina – 20,450 tons. However, in the first 5 months of 2024, Ukraine displaced China from the first position as a key importer of honey into the EU. Honey imports into the EU have occurred before, but **market mechanisms** have worked that have not allowed such a drop in prices. The main problems with the trade in honey began with the EU's permission to import Ukrainian honey into the EU. In addition to the fact **that imported honey directly undercuts the price** of European producers, large quantities of it are also imported into Bulgaria where they are repackaged and exported as produced in the EU or Bulgaria

Another significant problem is fake honey.

Much of this so-called honey not only lacks its beneficial and healing properties, but also contains products such as glucose-fructose syrup, which is a prerequisite for various diseases. Honey is one of the most counterfeited products. In an investigation by the European Commission, out of 320 honey samples tested, 147 were counterfeit, most of which were from countries outside the EU. Almost 40% of imports come from China, and it is not uncommon for imported honey to be mixed with sugar syrup from rice, wheat or sugar beets and coloring. In recent years, beekeepers in Europe have been increasingly exposed to unfair competition and enormous

price pressure due to cheap fake honey, which often comes to the market from outside the EU.

CONCLUSIONS

As a result of the research, it can be argued that the appropriate natural climatic and ecological conditions and the traditions we have in beekeeping are not a guarantee for the development of the sector in Bulgaria, but are only a prerequisite for this. The most significant factor in a negative sense and a major obstacle to development was the profitability of beekeeping. It is accordingly a function of poor management policies on the part of the EU and the country, as a result of which the price of honey is subjected to serious dumping by unfair competition from countries importing, to a large extent, low-quality and in many cases, fake honey. Since the main source of income for Bulgarian beekeepers comes from the sale of honey, low purchase prices are detrimental to Bulgarian beekeepers. All these data confirm that the sector is facing a permanent and deepening crisis, which will seriously affect honey production, crop pollination and the overall ecological balance in Bulgaria.

Bulgarian beekeepers alone will not be able to cope with the situation they are in. In this case, there is a need for intervention at the state and European level regarding changes in the legislative and regulatory framework, at the EU level.

As a result of the study, **several recommendations** have been made that could help the financial condition and development of the sector:

-When importing honey from third countries, honey and other bee products must be subjected to laboratory analysis, including nuclear magnetic resonance, to ensure compliance with EU standards. And to prevent the import of low-quality and fake honey.

-To require mandatory labeling of honey and bee products with data on quality, composition, origin and the enterprise in which it is packaged. Also, synchronization of packaging legislation with all EU member states. To

avoid fraud by malicious packers and traders who mix low-quality and counterfeit honey;

-To ensure the survival and stability of the beekeeping sector, it is necessary to take urgent measures aimed at strategically expanding and strengthening financial support. But they should be based on scientifically sound analysis. Any form of payment, be it subsidy, compensation or direct aid – should be determined on the basis of empirical data and objective criteria, in order to avoid insignificant support imitating concern on the part of the institutions;

-There should be a minimum price for the EU, which should be linked to various market mechanisms such as tariffs, quotas, licenses, etc., which, when the price falls or increases too much, should limit or allow imports of honey and bee products from third countries. In this way, beekeepers throughout the EU will feel much more secure and protected.

Beekeeping, besides being an agricultural sector and a livelihood for thousands of people, is also strategically important for the country and for the food security of Bulgaria and the entire EU.

REFERENCES

- [1]Angelov, G., 2024, Status and trends in the development. Conference Proceedings "Innovative development of agricultural business and rural areas, pp. 282-290. Sofia: UNWE Academic Publishing House.
- [2]Angelov, G., 2017, Problems in the production and sale of honey in Bulgaria. Annual doctoral Research Almanac, 643-654 pp.
- [3]Basheva-Nikolova, H., 2023, Beekeeping in Bulgaria and the Bulgarian Lands until the Liberation. Bulgarian Science, pp. 103-116.
- [4]Borisov, P. H., 2020 (2 March), Effects of the application of the CAP on the development of bee farms and profiling of their needs in the future. Journal of Bio-Based Marketing, pp. 39-51.
- [5]Chiurciu, I.A., Zaharia, I., Soare, E., 2024, Aspects related to the honey market and the ethics of the beekeeping environment in Romania. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 24(2), 295-304.
- [6]Garabedian, H., 2023, Assessing the impact of the CAP on the profitability of bee farms in Bulgaria. Bulgarian Journal of Agricultural Economics and Management, 68(2), 3-11 (Bg).

- [7]Hristov, P., 2016, Organic beekeeping in Bulgaria - nature, status and prospects. *Agricultural Academy/Animal Sciences*/3-6/, 20-29.
- [8]Lyubenov, L., 2020a, Development of the Bulgarian markets for bee products. *Society and Health*, 92-100.
- [9]Lyubenov, L., 2020b, (1 June), Communication Policies of Bulgarian Beekeeping Farms in the Context of the Common Agricultural Policy of the EU. *Business Management*, pp. 79-98.
- [10]Ministry of Agriculture and Food, 2024, (15 August), Beekeeping in Bulgaria in 2023. Ministry of Agriculture - Directorate "Agrostatistical Beekeeping": www.mzh.government.bg/media/filer_public/2024/03/01/ra234_beeshoney2023-29022024.pdf, Accessed on 5 February 2025.
- [11]Pirvutoiu, I., Popescu, A., 2011, Analysis of Romania's honey market, *Scientific Papers Animal Science and Biotechnologies*, 44(2), 500-503.
- [12]Popescu, A., 2013, Research concerning apiary size, honey yield and beekeepers' income in Teleorman county, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 13(1), 293-300.
- [13]Stanev, Y., 2018, Entrepreneurship as an opportunity for employment (self-employment) and development of small towns in Bulgaria. *Dialogue*, 35-48.
- [14]Simova, A., 2007, Honey production in Bulgaria - state and prospects for development. *Economics and management of agriculture*, 52(5), 58-63.
- [15]Yordanova, E., 2023, *Management Aspects in Modern Agriculture*. Svishtov: Domino Publishing House.