

ANALYSIS OF WORLD DEVELOPMENT OF THE BEEKEEPING INDUSTRY

A.Suvanov, B.Sultanov, U.Kholiyorov “Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University

Abstract

To solve theoretical and practical issues of increasing the efficiency of regional beekeeping development, an analysis of the economic state of the beekeeping industry, as well as factors affecting the dynamics of its development in the five leading honey exporting countries. The paper shows some sectoral features of the functioning of beekeeping and the dynamics of the sale of its products, organizational and economic mechanisms for the interaction of agricultural producers and processing enterprises.

Keywords: beekeeping development, beekeeping products.

Introduction. The development of agriculture and the improvement of food supply to the population is one of the priority state tasks. Beekeeping has a high value due to the resulting marketable products and the creation of opportunities for natural pollination of crops in order to increase their productivity. Therefore, areas of intensive agriculture have great potential in the development of the industry. Honey bees pollinate 80% of entomophile's crops, thereby making an irreplaceable contribution to the production of berries, vegetables, fruits, plant seeds and forage crops, while not only increasing the yield of cross-pollinated crops by up to 50%, but also improving the quality of seeds and fruits. The cost of additional harvest from bee pollination exceeds the cost of direct beekeeping products by 10–12 times. Thanks to bees, a third of the food consumed by mankind is produced.

The relevance of the problem of the effectiveness of the development of regional beekeeping is determined by the increasing importance of its products for nutrition and treatment of the population, ensuring the country's food security, and improving the supply of raw materials to a significant number of industrial sectors. Under the conditions of Uzbekistan's wish entry into the World Trade Organization (WTO), the activation of the development of beekeeping is necessary for the formation of parity relations in the international beekeeping market, in which, despite economic difficulties, the country can occupy one of the leading places in the world. In addition, the implementation of the State Program for the Development of Agriculture and the Regulation of Agricultural Products, Raw Materials and Food Markets for 2020–2022 has not yet been provided with applied scientific tools for the development of the beekeeping industry.

Increasing the effective level of development of regional beekeeping does not require large budget expenditures and can produce a positive social and economic effect in the short term, including by increasing the level of employment in rural areas. Compared to other branches of agriculture, beekeeping is less laborious - it can be done by various categories of the population, including pensioners, teenagers, housewives, etc. Modern technologies for breeding and keeping bees do not require the use of hard physical labor.

Study area. The object of the study was the organization of the functioning of the beekeeping industry in the five leading honey exporting countries - China, New Zealand, Argentina, Germany, Spain. The study is based on the principles of dialectical logic, systemic and institutional approaches to the analysis of economic phenomena and processes; analysis and generalization of theoretical provisions and empirical experience in the development

of the industry in countries with developed beekeeping. To achieve new scientific knowledge, scientific approaches were applied that are justified and widely used in modern scientific research: economic, statistical and analytical methods, selection, distribution, comparison, generalization, problem-hypothetical knowledge, forecasting, graphic description.

Results. The demand for bee products is formed by two categories of consumers: 1) those who consume honey as a food product; 2) purchasing bee products as raw materials for further processing in the food, cosmetic, pharmaceutical, paint and varnish and other industries. Recently, the need for the last category of consumers, concentrated in large settlements, has increased, which leads to the need to attract intermediaries and develop the beekeeping market infrastructure. One of the criteria for the competitiveness of an industry or agriculture is the export of its products. This also applies to beekeeping. The development of the beekeeping industry in a single country can be judged by the volume of honey supplies abroad. According to the consulting company WTE_x (World's Top Exports) (Table 1), in 2019 natural honey was produced in the world for 2.2 billion US dollars. Export of honey amounted to 825.3 million US dollars, or 36.8% of the value of honey produced in the world.

Table 1.

The share of top countries in the world honey exports, 2019

#	Countries	Honey export (million dollars)	Share in hole products, percentage
1	China	276,6	12,3
2	New Zealand	206,7	9,2
3	Argentina	168,9	7,5
4	Germany	144,9	6,5
5	Spain	109,0	4,9
6	Ukraine	108,2	4,8
7	Mexico	93,7	4,2
8	Brazil	92,0	4,1
9	Turkey	75,9	3,4
10	Russia	74,2	3,3

The share of the continents in the world export of honey in 2019 is: Europe - 36.8%; Asia - 23.5%; Latin America (without Mexico) and the Caribbean - 14.5%; Oceania (mainly New Zealand and Australia) - 10.6%; North America - 7.8%; Africa - 6.8%.

Beekeeping in China. China is the world leader in the production and export of honey. In 2019, the country produced about 450 thousand tons of honey, and exported honey to other countries in the amount of more than 276 million US

dollars. The country's share in world exports is 12.3%. The number of bee colonies in China reaches 9 million, most of which are accumulated by amateur beekeepers. The center of Chinese beekeeping is Zhejiang Province. Here there are 1 million bee families, 15 thousand beekeepers and up to 1/3 of the total volume of honey collected in the country is produced. About 2 thousand small and medium-sized companies, as well as 10 large companies with a product turnover of more than 15 million US dollars per year, are engaged in processing and marketing of bee products, for example, Dalian Sangdi Honey bee Co., Ltd. The number of beekeepers employed in the industry is about 300 thousand people.

The state does not provide direct financial assistance to beekeepers, but in turn finances veterinary services, the promotion of new scientific developments and the training of qualified specialists. Honey in China is not taxed, which favorably affects the development of the beekeeping industry in the country. Standards aimed at increasing the quality of products sold have been approved. These measures allowed Chinese beekeepers to enter the world market, which was a significant impetus to the development of the industry in the country. About 50% of Chinese honey is exported. The main importing countries of Chinese honey: Japan, Great Britain, Belgium, Spain, Thailand, Thailand, Germany, the Netherlands, Poland, Portugal.

Beekeeping in New Zealand. About 19.8 thousand tons of honey were produced in the country, and honey was exported in the amount of 206.7 million US dollars. According to this indicator, New Zealand ranked second after China and far ahead of Argentina, Germany and Spain. According to the Ministry of Basic Industries, the assets of the beekeeping industry for the period from 2010-2016. increased from 75 million to 1.2 billion New Zealand dollars (50 billion rubles). The country's share in world exports is 9.2%. The number of beekeepers and beekeeping farms employed in the industry is 8.5 thousand. Of this number, 29 farms are classified as large. They account for 34% of the bee colonies in the country. In the largest of these farms, there were 30 thousand bee families. The number of bee colonies in the country is about 820 thousand. According to the forecasts of the management of Beeline Supplies, by the end of 2018 the number of bee colonies in the country may grow to 1 million. Owners of 50 bee colonies become members of the association automatically. There are also 16 regional branches. The budget is formed from membership dues.

The second category of beekeeping enterprises includes specialized farms, pilot farms, bee nurseries, bee farms and bee complexes, apiaries at diversified agricultural enterprises (20%). A large number of farms are provided with modern means of production, staffed with qualified personnel, actively introduce innovations, achievements of science and best practices of domestic and foreign beekeeping. In the countries under study, the beekeeping industry does not stand still and is being reformed in accordance with the model of economic integration between countries: the number of amateur beekeepers is declining, and the number of professionals tends to grow, respectively, the size of

apiaries and the number of bee colonies contained in them are increasing.

An increase in honey production and a decrease in its cost in the countries under study is carried out by creating a synchronized legal framework for beekeeping, liberalizing the honey trade, rationing beekeeping equipment and equipment, increasing the level of automation and mechanization of the industry, joining forces in the fight against bee diseases, training qualified personnel, etc. .

One of the main features of the effective development of the industry is that beekeepers unite into associations (societies) in various areas of activity: production, processing of products and raw materials; introduction of achievements of science and innovations; training and retraining of qualified personnel; environmental protection; control of diseases and pests of bees. The association of beekeepers in associations (societies) allows them to adapt to the conditions of the modern market. The technological chain of activities of such formations, as a rule, has a specific purpose and provides each of the participants with higher final results.

In countries with developed beekeeping, effective relations have been established between this industry and other sectors of the national economy, and its worthy place in the domestic and foreign markets has been secured. For a more rational placement of bee colonies in places with a rich honey base, permanent economic relations have been established with the branches of crop production regarding the pollination of entomophilous crops, with horticulture, grassland, forestry, park and reserve farming. It is practiced to pay beekeepers for pollination and rent of bee colonies for the period of flowering of melliferous vegetation.

Conclusion. The experience of beekeeping development in the five leading honey exporting countries - China, New Zealand and other countries - confirms that in order to further effectively improve the industry in the country, it is necessary to develop a typical economic model for the development of regional beekeeping.

In modern market conditions, the main directions for improving the efficiency of regional beekeeping are associated with increasing the competitiveness of the industry's products in the domestic and foreign markets. The main directions of development of beekeeping in the region include the intensification of production; deepening the specialization of agricultural enterprises and increasing the concentration of production; rational distribution of economic facilities throughout the region; improvement of the organization of work. The development of beekeeping in the region is associated with the observance of scientifically based standards, in accordance with which the industry is formed and functions. As basic rules, the norms are aimed at extended production. These include organizational, characterizing the conduct of beekeeping in general; organizational and technical, reflecting the internal content of the system of production and management of the industry; social, related to the responsibility of business entities, and others.

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