

ORGANIC CUCUMBERS IN THE WORLD

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In the production of organic products in the world, especially under controlled conditions, including greenhouses, growing cucumbers with the organic product mark is one of the most important sectors of the economy. Cucumber is the largest cultivated vegetable in the world, and in recent years, as a result of the reduction of fertile land and the increase of soil and water salinity, it has become one of the main agricultural crops [1-2]. Cucumber (*Cucumis sativus* L.) is the fourth most cultivated crop in open fields and greenhouses after potatoes, tomatoes and onions [3-4]. Cucumber cultivation in India dates back to 3000 BC, and in China 100 BC.

Today, 87805086 tons of cucumbers are grown around the world [6]. The People's Republic of China takes the leading place in this production and supplies 70338971 tons of cucumbers to the countries of the world per year. That is, only the People's Republic of China produces 80% of the world production of cucumbers. According to the international organization FAOSTAT (2020), in 2018, 1,984 million 75.2 million per hectare. tons of cucumbers are grown. In this regard, the People's Republic of China is one of the leading countries, among other things, the rate of cucumber cultivation per square meter in China is 53.86 kg, which is 42% higher than the rate of world countries [7].

In particular, North China has a very cold climate is explained by the fact that seasonal crops such as cucumbers, tomatoes, peppers, citrus crops and leafy vegetables are currently grown not only in greenhouses, but also in solar greenhouses [8]. Currently, the total area of greenhouses in the People's Republic of China is about 1.96 million hectares, and it is characterized by the fact that the main production is established in North China [8].

The country of Turkey occupies the second place, its annual production volume is 1916645 tons. In the third place, the Russian Federation supplies 1,626,360 tons of cucumbers per year, and the United States of America takes the 9th place and produces 677,880 tons of cucumbers [6]. According to the statistics provided by the International Food and Agriculture Organization, between 2016 and 2020, the weight of cucumber cultivation increased by 3.7%, and in 2019, 87976103 tons of products were produced. Is grown in large quantities in South Asia, especially in the hot and humid climate of the Himalayan mountain range in Northwest India, and in countries located in North Africa.

The climatic conditions of these countries correspond to the productivity requirements of cultivation with high temperature, humidity and light intensity with sufficient amount of water and nutrients [9]. In the Netherlands, the most developed protected area vegetable growing, the area of greenhouses in 1980 was 16 thousand hectares, and by 1995 it exceeded 22 thousand hectares, the average annual growth of the greenhouse area during this period was 500 hectares. In Italy, a significant increase in protected areas began in the 1960s, and by 2000, the area of greenhouses had increased more than 60 times. Bulgaria, Romania and Poland, which did not have a protected area for production 20-25 years ago, are now among the most developed countries with a protected area of vegetable growing.

Today, this area is 1500 hectares, and in the USA, protected areas are 3500 hectares. In Commonwealth of Nations member states, protected areas are about 30,000 hectares, of which 60 percent are covered with film and 40 percent are glass greenhouses. Globally, the market for organic agricultural products is developing year by year.

In Central Asia and the Republic of Kazakhstan, the organic agricultural product market is forming and developing at different stages. Although some progress has been made in this regard, general and local problems still exist. For example, these include obtaining international standards for organic products, insufficient information on the state of the domestic and regional markets, different approaches to the organization and assessment of organic agriculture.

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