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CONDITIONS FOR THE DEVELOPMENT OF THE GREENHOUSE INDUSTRY IN UZBEKISTAN

Annotation: The provision of the population with fruit and vegetable products is one of the most important indicators of the fullness of the diet.

Key words: greenhouse, industry, agriculture.

According to scientifically based nutrition standards, a person should consume 130-150 kg of vegetables and 120 kg of potatoes evenly throughout the year. According to the norm of the Ministry of Health of Uzbekistan, the consumption of fresh vegetables per person should be 142 kg annually and 28 kg in winter. A full, balanced diet requires the consumption of vitamins in their natural form all year round. However, Uzbekistan is located in a sharply continental climate zone and local conditions do not allow obtaining vegetables from the open ground evenly throughout the year, which excludes the possibility of providing the population with fresh vegetables all year round. Since the production of fruit and vegetable products is seasonal, for the uniform consumption of vegetables by the population during the year, about 25% of their total amount should be grown in greenhouses, greenhouses, insulated soil, etc.

The main and main purpose of protected ground (greenhouses) is the cultivation and provision of the population in the off-season (autumn-winter-spring) with vegetable crops, as well as flowers and ornamental plants, and the preparation of seedlings of vegetable crops for obtaining early vegetables in the open ground. If you calculate the average yield in greenhouses, one resident of Uzbekistan accounts for 5 kg of fresh vegetables in winter, of which more than 40% is exported. As a result, the prices of fresh vegetables in the winter-spring period increase by 6-8 times.

It is known that with 1 m² of open ground, the yield of vegetables is less than 1.5 kg, while in the conditions of protected soil with 1 m² in farms, it is up to 50 kg. Only in conditions of protected soil can you get off-season, environmentally friendly products with high and stable yields. Therefore, the cultivation of vegetable products in protected ground conditions is increasingly spreading in the world. On March 20, 2019, the Decree of the President of the Republic of Uzbekistan “On measures for the further development of horticulture and greenhouse farming in the Republic of Uzbekistan” was issued.

This decree established the Agency for the Development of Horticulture and Greenhouse Farming under the Ministry of Agriculture of the Republic of Uzbekistan with relevant departments and sectors at the regional and district levels.

The Agency has established a Fund for the Development of Horticulture and Greenhouses without the status of a legal entity, the funds of which are spent on the implementation of comprehensive targeted programs aimed at the sustainable development of horticulture and greenhouses.

At the same time, it is established that state support for newly created gardens and greenhouses that have implemented water-saving irrigation technologies based on drip and rain irrigation is provided at the expense of the Fund and the state budget in the form of subsidies. And the State Fund for Supporting the Development of Entrepreneurship under the Cabinet of Ministers of the Republic of Uzbekistan provides guarantees to small businesses for the creation of intensive gardens and greenhouses on loans from commercial banks in the amount of up to 50 percent inclusive of the loan amount, but not more than 5 million sums.

The general global trend in the development of the greenhouse industry is an active increase in production. This became possible due to the widespread transition to intensive technologies and methods of growing plants in closed ground, the use of new structures, materials and energy-saving technologies. In addition, in the context of global urbanization, the enlargement of urban conglomerates, there is an increase in the shortage of land suitable for agriculture. In such conditions, the decrease in the production of fruit and vegetable products in

the open field is compensated by increasing the cultivation in greenhouses. The trend towards a healthy and balanced diet also leads to an increase in the consumption of environmentally friendly greenhouse products.

The largest number of greenhouses is located in China – with a total area of 1,700 thousand hectares, most of which are film-based. In China, the greenhouse and greenhouse economy is developing rapidly. China accounts for 80% of the global area of greenhouses and greenhouses. In 2005, 400 times more vegetables were grown in greenhouses than in 1980. Most of the greenhouses are located in the south and south-west of the country. The greenhouse economy of China is characterized by the intensity of land use (they receive 3-9 harvests per year in the south and 1-3 harvests in the northern regions) and the predominance of manual labor. Main crops: Chinese cabbage, Chinese radish, batun-onion, mustard (leaf and root), garlic, cucumber, etc. China today ranks first in the greenhouse production of mushrooms – 8 million tons per year.

Shouguang County of Shandong Province is considered the birthplace of Chinese greenhouse vegetables. As of January 1, 2009, the area of greenhouses in which winter varieties of vegetables are grown in Shouguang County was 53 thousand hectares. In the face of fierce international competition, the leadership of the city of Shouguang took measures to standardize production, organized seed breeding on the basis of the Academy of Agricultural Sciences, and created a Center for Quality Control and Safety of Agricultural Products. These measures made it possible in 2006 to register the trademark "Shouguan vegetables", the high quality of which is recognized in more than 50 countries around the world.

The Netherlands occupies one of the first places in the world in terms of the area of closed ground and in terms of the volume of greenhouse products grown per 1 person. State support in the form of a program of long-term lending to agricultural producers at a low interest rate of 1.5-2.5% per annum for up to 25 years allowed us to develop the greenhouse industry, the scale of which today is 13 thousand hectares of closed ground. The Dutch are highly efficient in using their

own greenhouse areas throughout the year, regardless of weather conditions. The main part of the greenhouse area — about 60% — is occupied by flowers.

More than 80% of Dutch greenhouse vegetables are exported to other countries, the main consumers are the EU countries — 80% of Dutch agricultural exports are sent there. Obtaining cheap products is achieved by the specialization of farms on a limited number of crops, the presence of a large number of greenhouses and obtaining several harvests in them per year. The greenhouses grow grapes, peaches, plums, strawberries, and tomatoes. So, for example, the production of cucumbers is increasingly concentrated in greenhouses, and the released areas are occupied by cabbage. In greenhouse farms, a high level of labor productivity has been achieved (1.5-2 thousand m² of area under cucumbers, 3-3.5 thousand m² under tomatoes are assigned to one worker). One of the factors for increasing labor productivity in greenhouses is the cultivation of long-fruited parthenocarp hybrids of cucumbers and tomato hybrids with high productivity.

At the same time, the liberalization of domestic gas prices in the 1990s and the restrictions imposed by the EU created serious problems for Dutch farmers. In fact, these factors undermine their competitiveness in the domestic and foreign markets. Until recently, the share of Dutch products in the world food trade was 10%, and today it has decreased to 7.5%.

In the specific conditions of Uzbekistan, where more than half of the population lives in rural areas, the agricultural sector of the republic has always been of leading importance in the economy of the republic, one of the most promising industries is the cultivation of agricultural products in closed ground. Currently, due to environmental changes in nature, as well as the fact that the resources of traditional energy sources are limited and are increasing in price, in existing greenhouses, energy costs account for more than 50% of the cost of production. The insufficient production of energy resources and their growing high cost constrain the development of agricultural sectors. In order to reduce energy costs, great attention is paid to the development of new energy-saving

technologies, non-traditional and renewable energy sources around the world. In this regard, there was a need for the development of energy-efficient greenhouses.

It is necessary to build new greenhouses using modern technologies that provide increased productivity of vegetable crops with a minimum of energy consumption. Peasant farms and farmers, which account for more than 97% of the gross output of the entire agricultural sector, are interested in the broad development of modern and energy-efficient greenhouses in Uzbekistan. Currently, there are about 220 thousand farms and more than 2 million Peasant farms operating in the republic. At the same time, about 3% of Peasant farms and about 2% of farms already have greenhouses.

In this regard, for the development of the greenhouse industry in the republic in order to provide the population with fresh vegetables and increase the export potential, it is necessary to develop a state program for the construction of modern energy-efficient greenhouses in Uzbekistan until 2030 with an increase in the area of closed ground by 4 times.

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