
Abstract: In Uzbekistan, fruits especially tasty and healthy. Since in our country does not use GMOS and we have more than 300 sunny days a year, as a result our fruits are sweet as honey. For example, the sugar content of grape varieties Uzbekistan reaches 30%, which is significantly higher than many manufacturers of similar products.

Traditionally, in high demand in foreign markets are fresh and dried grapes, pomegranates, melons, apricots and peaches, plums and apples, as well as many other kinds of fruit and vegetables grown in the fertile land of Uzbekistan.

Improving production and export capacities of fruit and vegetable industry of Uzbekistan is very important for inside and outside of the country. In this article given some statistical and analytical information and some possible solutions on production and export capacities of fruit and vegetable industry development in the region.

Key words: Vegetable and fruit production, labor resources, price formation, import and export activities.

Language: English


JEL: M38; M37; Q18.

Introduction

Over the past 20 years, world consumption of fruits and vegetables has grown by an average of 5-7% per year. Uzbekistan not only meets the needs of its population, but also exports agricultural products and has great potential in this area.

In Uzbekistan, more than 19 million tons of fruit and vegetable produce are produced annually, of which about 700,000 tons are exported. Currently, over 160,000 farms operate in the country, which provide domestic and foreign markets with quality fruits and vegetables. The total volume of storage facilities in the country is 975 thousand tons of products, including modern refrigerating chambers for 502 thousand tons. This facilitates the uninterrupted supply of basic agricultural products to the population, and the expansion of its exports. The transport infrastructure is developing dynamically, at the same time the work is being carried out to ensure the interconnected logistics networks, the foreign trade relations that ensure the growth of the export potential of the sector are expanding.

The development of the fruit and vegetable sector is not only the provision of food security, but also the formation of new sectors around it, the creation of new jobs that will improve the living standards of the people.

The government adopted the Program for the Development of Agriculture for 2016-2020. It has determined the main directions for the continuation of structural transformations in agricultural production, the introduction of advanced agricultural technologies, the integrated mechanization of agriculture and the deepening of the processing of raw materials. It provides for step-by-step optimization of cotton areas by the withdrawal of low-yielding land with subsequent placement of fruit and vegetable crops, potatoes and other crops on the released area, as well as the organization of intensive gardens, further development of selection and seed production. [1]

The implementation of these and other measures in the agrarian sphere will ensure further strengthening of the food security and self-
sufficiency of the republic with the main types of food products, as well as a significant growth in exports of this product, demanded on foreign markets.

The key problem of fruit and vegetable exports is currently its non-diversification (limited by a narrow list of importing countries and an entrenched structure). This situation carries a number of challenges. Firstly, the worsening economic situation and the reduced demand for fruit and vegetable products in the main importing countries can cause serious problems for the entire industry. Secondly, the monopsony power of importing countries can lead to the creation of a situation where import buyers have the opportunity to dictate prices for Uzbek products.

In turn, the markets of developed countries (EU, Japan, Korea, China), in the case of diversification of supply of quality products that meet their standards, are interesting in terms of greater purchasing power. Uzbek producers can and should expand the geography of exports of fruit and vegetable products, in particular, through increasing supplies to the EU, East Asia (China, Japan, Korea) and other regions of the world, while simultaneously diversifying the commodity structure of fruit and vegetable products.

However, for the implementation of these installations, there is a need for purposeful work to improve the institutional and regulatory framework in the production, procurement, storage and export of fruit and vegetable products.

Problems of developing production and export of fruit and vegetable in different countries was investigated by scientists as A. N. Austriyevsky [4], Berezin, I.S.[5], Gel'fand, S. Yu [6], Okhorskina, Yu. O. [7].

The article analyzes the existing problems and legal gaps that reduce the effectiveness of the implementation of government decisions in this area. Recommendations are developed aimed at improving the regulatory framework and the activities of institutions responsible for implementing policies in this field.

Factors affecting the development of the fruit and vegetable sector in Uzbekistan

The soil-climatic conditions of Uzbekistan are favorable for the production of a wide range of vegetable and melon crops, which substantially surpass similar products from other countries in terms of quality, the content of such important trace elements as sugar, fructose, ascorbic acid and a number of other biologically valuable substances that ensure a balanced diet.

Along with excellent taste parameters, the agricultural products produced in Uzbekistan are of low cost. For example, in the USA, which are at the same time one of the largest importers and producers of agricultural products, the cost price of potatoes, carrots, cabbage, melons averages 5-6 times, and tomatoes are almost ten times higher than in Uzbekistan. At the same time, Uzbekistan has a serious additional potential to reduce the relative cost price by increasing yields for all major fruit and vegetable crops. [2]

At the new stage of implementing a coherent strategy for the development of the agrarian sector in the country, the key objectives are to further strengthen food security based on own production of food resources, increase the productive potential of agriculture with efficient use of land and water resources. The social effect of the implementation of such a program is the growth of employment, income of the rural population and the quality of food consumed by the entire population of the country.

However, at present, there are a number of factors that adversely affect the development of the fruit and vegetable sector and its export potential.

Limited land and water resources.

In the conditions of limited land and water resources and taking into account the constant growth of the population of the republic, traditional methods of farming require new approaches. For the accelerated development of the fruit of vegetable growing and viticulture, new approaches and mechanisms are required, a change in the structure of agricultural production as a whole, and the introduction of innovative and resource-saving technologies.

In the structure of agricultural production, the share of fruit and vegetable production is more than 40%. However, the share of acreage allocated for fruit and vegetable crops does not exceed 20% of the total sown area.

Taking into account the objective limitations of land and water resources, optimizing the location and improving the structure of sown areas, taking into account the soil quality score, the choice for crops of the most productive and popular crops in the domestic and foreign markets will achieve a significant increase in the efficiency of land and water resources use and increase at this based on the volume of production of other crops.

This is evidenced by the results achieved in previous years. Thus, the share of grain crops in the total agricultural acreage increased from 25.7% in 1991, up to 45.2% (1.67 million hectares) in 2016, potatoes and vegetables - from 7.0% to 9.5% (350.6 thousand ha), while the share of industrial crops decreased from 41, 9% to 34.2% (1.27 million hectares). [10]

Currently, more than 21% of all irrigated agricultural lands are used for growing fruit and vegetable products. The share of the industry in the total production of agricultural products is more than
45%, and in the export of agricultural products - 43.4%.

Along with optimization of sowing areas, work is needed to accelerate the introduction of modern technologies and innovations in cultivation in the field of fruit and vegetable growing and viticulture, the creation of new intensive gardens and vineyards, the removal of water-saving, salt-tolerant and resistant to biological pests varieties of vegetable crops.

Since 2009, there has also been a process of increasing the area of gardens, primarily through the creation of new high-performance intensive dwarf plantations. For 2009-2016 years, more than 60 percent of the gardens and 50 percent of the vineyards are renewed by creating 36.8 thousand hectares of new gardens and 40.5 thousand hectares of new vineyards, the reconstruction of 63.7 thousand hectares of gardens and 40.8 thousand hectares of vineyards.

Also, on the basis of advanced foreign experience, more than 31.4 thousand hectares (12% of the total area of gardens) of high-yielding dwarf and semi-dwarf intensive gardens have been created and are functioning with the use of modern technologies of drip irrigation and other innovations.

To increase the production of fruit and vegetables, create new jobs, increase incomes and the level of well-being of the population, over 55.6 thousand greenhouses have been created on the area of 3.2 thousand hectares over the period 2009-2016, of which 1044 hectares of greenhouses account for 51.6 thousand household plots of the population.

Beginning with the harvest in 2016, the production of raw cotton under contracting contracts will be reduced by 386 thousand tons, and accordingly, a decrease in acreage under cotton for 185.5 thousand hectares is planned. Starting from the harvest of 2017, it is planned to reduce the acreage for cereals by 50,000 hectares.

Potatoes (36.0 thousand ha), vegetable (101 thousand hectares), fodder (50.9 thousand ha) and oil crops (15.2 thousand ha), new intensive ones will be gradually planted on the released low-yield and low-yielding lands. gardens (20.8 thousand hectares) and other crops (12 thousand hectares).

Calculations show that the phased reduction of cotton plantations on lands where its yield does not exceed 1 tons per hectare, grain-crops with yields below 2 tons per hectare on a total area of 220.5 thousand hectares and placement of other food crops on them, will increase the production of fruit and vegetable production of 4,856 thousand tons, fodder crops for 1670 thousand tons and oilseeds for 62 thousand tons. This will give an opportunity to get in these areas annually instead of losses in the amount of more than 270 billion soums, as well as increase the employment of the population by 175 thousand people.

A phased replacement of existing old orchards and vineyards with intensive ones, as well as creation of new intensive orchards and planting of fruits and vegetables on the liberated lands with the use of high-tech agrotechnical measures will allow due to the growing number of plantings and the share of high-yield intensive gardens from 12% to 28 thousand hectares, in 2015 to 28.3%, or 78 thousand hectares, in 2020 to increase the yield of gardens at least 3-4 times.

2. Disadvantages in the system of zoning and seed production

The sowing of fruit and vegetable products, melons and legumes are carried out, mainly, in small and scattered areas, where fruit and vegetable and bean products of different types, types and species are produced. All this creates problems when exporting, not meeting the requirements of grade, size and appearance for overseas buyers.

Currently, more than 40 types of vegetable, melon and potato crops and more than 32,500 varieties of fruit and 955 varieties of grapes are cultivated in Uzbekistan. At the same time, more than 100 tons of various types of vegetable seeds are imported annually. For example, in 2015, more than 179 tons of seeds were imported for $ 4.9 million.

The task of modern breeding is to create ecologically pure varieties that are capable of adapting to unfavorable growth conditions. It is necessary to carry out selection work with vegetable crops to create various productive varieties: canteens, for processing and for export. Each group of these varieties should have a certain set of characteristics and properties in combination with high yields.

Potato plays an important role in ensuring the food security of any country. Over 110 thousand hectares of land are allocated for planting potatoes in our republic. To provide this area, seed material requires 334,000 tons of seed potatoes. At the same time, the need for seed potatoes of the "elite" class is 18.0-20.0 thousand tons.

To date, the seed fund of potato of elite varieties has not been fully formed in the republic, which makes it possible to supply potato seeds on an industrial scale. In 2015, the volume of imports of seed potatoes of the "elite" class was 16.8 thousand tons.

Mass supply of seedlings for intensive gardening is carried out, mainly, since 2010, and to date more than 80 varieties of seedlings have been imported. According to the Order of Variety Testing, a sample of new varieties of seedlings is tested for 3 years and, as a result, is included in the Register. However, up to the present time only 4 varieties of seedlings and only apple trees are included in the Register.
Although starting from 2010, according to the order of the Cabinet of Ministers, seedlings of peaches (nectarines), apricots, plums and sweet cherries were also imported.

At present, new varieties of dwarf and semi-dwarf trees are being created in the world with high rates of yield and early maturity, as well as taste qualities. However, due to the lack of these varieties in the State Register, farmers and other agricultural producers are not able to import and sow. As a result, the republic’s potential in the production of export-oriented fruit products is not fully utilized.

3. The degree of processing of fruits and vegetables

Export of fruit and vegetable products has a serious potential for growth through deep processing and expansion of the range and increase in production volumes. The development of exports of the fruit and vegetable sector should be based on: i) the accelerated development of the raw materials base; ii) construction of new and modernization of existing production facilities with attraction of foreign investments for deeper processing of agricultural raw materials; iii) the creation of modern trade and logistics centers and refrigeration facilities. So, for the period 2016-2020 gg. provides for:

- increase in the level of industrial processing and production of finished products with high added value by creating 370 enterprises for processing agricultural raw materials in the regions, including 138 enterprises for processing 99.1 thousand tons of fruit and vegetable products, as well as implementing 180 investment projects for construction of new, reconstruction, modernization and semi-finishing of agricultural processing and finished food products enterprises for a total amount of $ 585.9 million, and which 85 projects valued at $ 197.8 million for the development of fruit and vegetable sector;

- creation of trade and logistics centers in each region for harvesting, primary processing, packaging, storage, transportation and export of fruit and vegetable products with a total capacity of 36.5 thousand tons of refrigerated storage;

- development and strengthening of the material and technical base of storage facilities equipped with modern refrigerating equipment, construction of new modern refrigerating chambers for storage of fruit and vegetable products with a capacity of 325,000 tons.

An important link in the agro-industrial complex is the system of harvesting of agricultural products, designed to take, store and bring agricultural products to the consumer in a timely manner. However, due to the imperfection of the procurement system, significant volumes of fruit and vegetable produce do not reach the consumer every year. The reasons for this situation are the following:

**A) Gaps in the existing system of purchasing / harvesting fruit and vegetables.**

More than 50 percent of the produced fruit and vegetable products fall on dehkan farms and personal part-time farms of the population. However, the share of dehkan farms with the formation of a legal entity is less than 10%. At the same time, the mechanism for concluding contracts for contracting and making mutual settlements with dehkan farms without the formation of a legal entity is absent. This is caused by the problem of the lack of opportunity for procuring organizations to pay cash (primarily for working with dehkan farms).

It is necessary to develop a mechanism for concluding contracting contracts and making mutual settlements with dehkan farms without forming a legal entity. [9]

**Increasing the efficiency of the production system, harvesting and export of horticultural products.**

To increase efficiency in the production of fruit and vegetable products, it is necessary to implement a number of measures in this area.

To increase the volume of export-oriented fruit and vegetable products, it is necessary to divide the production of fruit and vegetable products by specializing in 3-4 districts in each region to produce exclusively fruit and vegetable products of one type and variety that is in high demand in the domestic and foreign markets.

This will allow increasing the volumes of export-oriented fruit and vegetable products, supplying to the foreign markets of high-quality fruit and vegetable products of one type, quality, grade, caliber and taste in accordance with the requirements of foreign buyers.

In order to develop an intensive method of gardening, to create new types of modern intensive gardens and to increase the volume of production of export-oriented fruit products in demand in export markets, it is necessary to take measures to accelerate the work on strain testing and include in the State Register new local varieties of fruit and vegetable products that are in demand on export markets.

For the broader application of the drip irrigation system, in order to create favorable conditions for the development of intensive horticulture and increase the possibilities for storing fruit and vegetable products, it is necessary to adopt the procedure for granting the possibility for farmers to build basins, large displacement tanks directly at agricultural production sites. This event will ensure the rational and effective use of land, the development of intensive gardening methods, the increase in the area of fruit crops with the use of a drip irrigation system.

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Measures to increase exports of fruits and vegetables

To solve the problem of increasing the volume of exports of fruit and vegetable products, ensuring its geographical diversification, increasing the volume of new products in demand on the markets, the following measures are necessary.

1. Formation of a modern logistics system through the creation of multimodal trade and logistics centers, geographically close to the main production centers for fruit and vegetable products. It can be geographically favorably located settlements, in particular, the city of Pap in the Namangan region, Shurchi in the Surkhandarya region, Chingeldi in the Tashkent region, Khozarasp in the Khorezm region. In these trade and logistics centers, the whole complex of technological operations for the storage and handling of goods (freight forwarding services, maintenance of vehicles and containers, as well as cargo cleaning and related services - information, financial, insurance, etc.) should be performed.

2. Diversification of the nomenclature of export fruit and vegetable products through an increase in production volumes where Uzbek producers have competitive advantages, such as the ripening season (different from competitors), taste qualities, etc., as well as the production of new types of products, including new varieties, having a higher productivity and other characteristics (color, caliber, etc.), which will reduce the cost of production and compete more successfully in foreign markets.

Thus, the share of five export products (cherry, apricot, peach, grapes and persimmon) in Russian imports is less than 10%. This means that with increasing production volumes of these types of products (subject to the production of demanded varieties), it is possible to increase the share of Uzbek products in Russian imports by several times.

In Uzbekistan, traditionally large volumes of certain types and varieties of products are grown, which, in such volumes or during the maturation period, are not in demand on foreign markets. For example, along with traditional dill and parsley, it is necessary to increase the production of such types of greens as lettuce, arugula, tarragon and others. Instead of a large and not demanded melon variety "Mirzachul" to increase the production of such varieties as "cantaloupe" or "honeydew."

Another direction is to increase the share in the export of legumes by expanding the range of products. Annually Uzbekistan exports about 200 thousand tons of wheat. The only markets for several years remain Afghanistan and Iran. At present, the cost of Uzbek wheat is $170-180 / ton on delivery terms to points of origin, while the price of legumes (mung beans, chickpeas and beans) ranges from $500 to $800 per ton, depending on the product.

Conclusion

The development of the fruit and vegetable sector, the increase in the production of vegetables and fruits and the provision of a sharp increase in exports of these products, diversified by geography and assortment, are important components of the policy of export-oriented development of Uzbekistan.

In the conditions of slowing the growth of the world economy, aggravation of environmental problems, as well as the limited land and water resources, the structural policy in the agrarian sphere of the republic should be further directed at speeding up the processes of modernization and technological renewal, introducing modern methods of agriculture, deepening the processing of agricultural raw materials, improving the quality of life of the rural population.

The most important directions of work in this direction are the following.

1. Provision of changes in the structure of sown areas aimed at increasing the area under horticultural crops. At the same time, it seems necessary to provide specialization / zoning of crops of fruits and vegetables based on climatic, soil, and demographic features.

2. It seems expedient to move to more market approaches in the system of purchasing / harvesting fruit and vegetable products that provide incentives for agricultural producers and reduce the monopoly of processing enterprises.

3. Improvement of the institutional environment in the sphere of production and harvesting of fruits and vegetables, with emphasis on the formation of large multi-profile farms, while providing conditions for the development of specialized small farms, depending on the specifics of each region / territory (land supply, irrigation water, climatic conditions for growth of certain kinds of fruit and vegetable products). Another way to improve the institutional environment is to stimulate the processes of voluntary entry of farmers into production and distribution cooperatives, which, combining the resources of individual producers, can provide conditions for the production of demanded and quality products, its storage, processing and marketing.

4. Diversification of fruit and vegetable exports as a prerequisite for ensuring the growth of export volumes requires a deliberate effort to create a modern logistics system through the creation of multimodal trade and logistics centers and a new system of certification and standardization of fruit and vegetable products, the expansion of the range of products exported for export, marketing policy to promote domestic fruit and vegetable products to new promising markets.
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References:

1. (2011) Resolution of the President of the Republic of Uzbekistan "On measures to develop and strengthen the material-technical base of the storage of horticultural products for the period of 2011-2015" from April 7, 2011.