

DEVELOPMENT TRENDS AND CHARACTERISTICS OF THE FRUIT AND VEGETABLE INDUSTRY IN UZBEKISTAN

<https://doi.org/10.5281/zenodo.19637726>

Israilova Khikoyat Musakulovna

Almalyk State Technical Institute

General Professional and Economic Sciences Senior Lecturer

of the department, researcher, of the National University of Uzbekistan

Abstract

This article covers the essence of the fruit and vegetable sector in the development of the national economy, its economic role and problems in the sector, and issues of sector development. When covering the topic, the factors influencing the fruit and vegetable industry and its export potential are also indicated.

Keywords

economy, regional economy, agricultural economy, fruit and vegetable growing, fruit and vegetable sector.

As is known, one of the main directions of our country's agrarian policy in recent years has been the reform of the fruit and vegetable sector, ensuring the efficient use of land, and establishing the cultivation of high-quality products for domestic and foreign markets. State policy in the agricultural sector was consistently aimed at developing market mechanisms, increasing the share of private property in farming, introducing modern agricultural technologies, and stimulating agribusiness entities.

In recent years, through Presidential decrees and resolutions, large-scale work has been carried out to support the activities of farmers, dekhkans, and cluster systems, introduce resource-saving technologies, modernize irrigation systems, and form an innovative infrastructure in the agricultural sector.

As a result, the efficient use of land resources, increasing the potential of the processing industry, and increasing the production of export-oriented products have been identified as priority tasks. As a result of these reforms, a stable growth trend has been observed in agricultural sectors, including fruit and vegetable growing.

The fruit and vegetable sector is of strategic importance in the agricultural system of Uzbekistan. It plays an important role not only in ensuring the food security of the population, but also in improving the country's foreign trade balance and creating jobs in rural areas. Therefore, the modernization of the industry, the

development of the cluster system, and the introduction of scientifically based cultivation technologies have been identified as priority areas.

It was in the context of large-scale reforms carried out in recent years that the fruit and vegetable industry in Uzbekistan demonstrated a trend of consistent and sustainable development during 2019-2023. During this period, a gradual expansion of sown areas, a constant increase in the gross harvest, and fundamental changes in the structure of ownership were observed in the industry. These changes confirmed the effectiveness of the institutional and economic measures implemented in the agricultural sector and contributed to ensuring food security in the country and increasing export potential.

The total area of fruit and vegetable crops increased from 819.8 thousand hectares in 2019 to 949.9 thousand hectares in 2023, an increase of 15.9 percent. In particular, the expansion of areas for potatoes and melons by 39 and 43.4 percent, respectively, is explained by the effectiveness of measures aimed at meeting the domestic demand of the population and increasing the export potential of melons. (see Table 1)

Table 1

Dynamics of changes in sown areas of fruit and vegetable products in Uzbekistan, (thousand ha)

Products	Years					2023 year until 2019 relatively %
	2019	2020	2021	2022	2023	
Vegetables and crops	336,6	336,3	342,5	351,8	361,3	107,3
Potatoes	89,6	93,3	98,7	110,9	124,6	139,0
berries	220,0	222,8	233,7	240,5	247,5	112,5
melon	53,4	61,1	67,3	71,8	76,6	143,4
grape	120,2	128,2	133,7	136,8	139,9	116,4
All	819,8	841,7	875,9	911,8	949,9	115,9

At the same time, the expansion of fruit and berry areas by 7.3 percent and vineyards by 16.4 percent indicates increased attention to perennial horticulture and raisin growing. An important trend can also be observed in the analysis of these products by form of ownership. Indeed, farms and dehkan farms occupy a leading position in the production of fruits and berries, providing the main part of the total production volume. (See Figure 1)

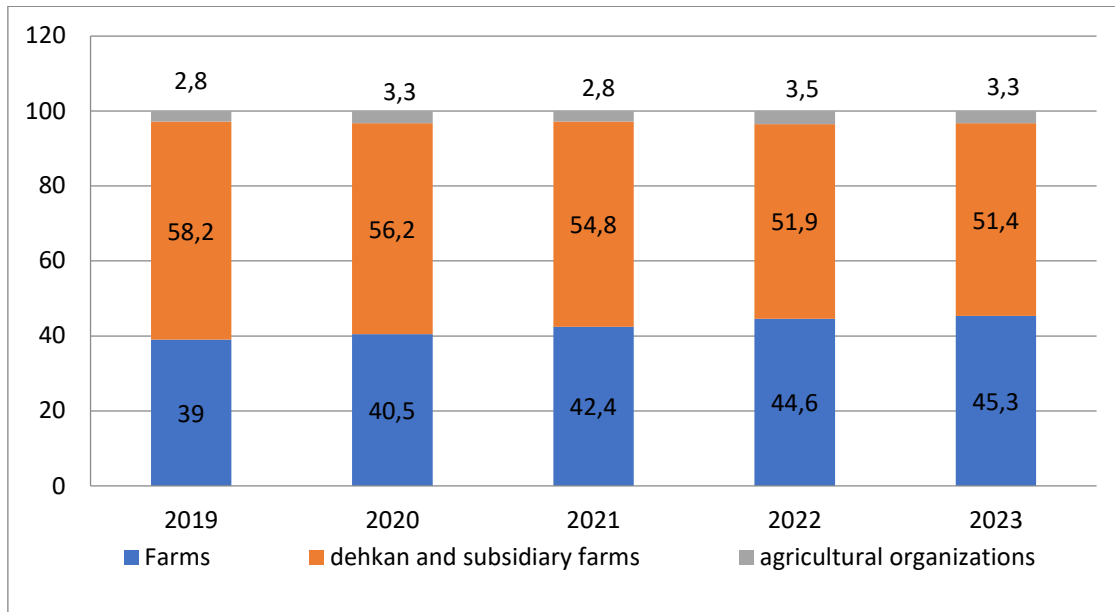


Figure 1. Dynamics of fruit and berry production by form of ownership, in %

In 2019-2023, significant changes were observed in the ownership structure of fruit and berry production in Uzbekistan. If in 2019 30% of the total production volume was accounted for by farms, 58.2% by dehkan and subsidiary farms, and 2.8% by agricultural enterprises, then by 2023 the share of dehkan and subsidiary farms decreased, and their share amounted to 51.4% of the total production. At the same time, the share of farms grew steadily, reaching 45.3% of the total volume. The remaining 3.3 percent was attributed to agricultural enterprises and other structures.

This trend indicates an increase in the economic and organizational capabilities of farms. In particular, farmers have the opportunity to implement effective management mechanisms in the farm management system, use credit and leasing services, and apply modern agricultural technologies. These factors allow them to achieve high yields, improve product quality, and produce export-oriented products with high added value.

At the same time, dehkan and household plots still occupy an important place in ensuring the country's food security. They are the main source of supplying the domestic market with fresh fruits and vegetables throughout the year, meeting the needs of the population. However, this category of farms has limited access to agrotechnical knowledge, modern equipment, and market infrastructure, which reduces their efficiency.

In general, in 2019-2023, the growth of the fruit and vegetable industry in Uzbekistan was mainly due to extensive factors - that is, the expansion of land areas, and yield indicators remained stable or declining. Therefore, in the future, as priority areas for the development of the industry, it is necessary to widely

introduce intensive agricultural technologies, modernize irrigation systems, improve the seed and nursery base, and increase the innovative potential of farms. These measures will ensure sustainable growth in the agricultural sector, strengthen the country's food security, and further expand its export potential.

The level of fruit and vegetable processing in Uzbekistan developed consistently in 2018-2024, but with trends in various directions. This indicator reflects the deep processing capacities, technological capabilities, and market potential of the country's agricultural sector.

The level of processing of vegetable products showed stable growth during the period. In 2018, this figure was 4.04%; in 2022, it rose sharply to 6.7%. This growth is explained by the revitalization of processing enterprises, the introduction of new technologies, and an increase in demand for finished food products in the domestic market. In 2023-2024, the indicator stabilized around 6.2-6.14 percent, which means that the system has reached a certain saturation point and has now moved to the stage of improving quality and efficiency. This situation indicates the need for additional investments in the processing industry and diversification of export-oriented product types.

A slightly different dynamic is observed in the level of fruit processing. In 2018-2020, the indicator grew from 18.07% to 19.97%, reflecting a high level of processing activity. During this period, production volumes for fruit juices, dried products, compotes, and jam expanded. However, in 2022-2023, the indicator decreased by 18.9 and 17.5 percent. This decline is explained by a number of factors: underutilization of capacities at some processing enterprises, interruptions in the supply of raw materials, and an increase in logistics and energy costs. In 2024, the indicator recovered again to 18.9%, that is, a stabilization trend was noted in the industry.

It should also be noted that in 2019, the share of fruit and vegetable products in total exports was 6.7 percent. In terms of value, the largest share of exports belongs to the Kyrgyz Republic, while the largest volume in kind was supplied to Kazakhstan - 556.5 thousand tons, which is 4.4 times more than in Kyrgyzstan.

This shows that Russia and neighboring countries occupy a leading position in the geographical structure of Uzbekistan's fruit and vegetable exports, but in recent years, opportunities for entering the markets of South and Southeast Asia have also been expanding. This trend serves as an important scientific and practical basis for export diversification and increasing the added value of products (Appendix 6).

Innovative approaches are an important factor in increasing the efficiency of fruit and vegetable production. This process, along with quantitative growth in the industry, also implies the rational and efficient use of available resources.

Intensification of the industry allows for the efficient use of material, labor, and financial resources and ensures a faster increase in production volume compared to cost growth.

The main direction of intensification is the creation of high-yielding plantations and providing them with stable material and financial support. Through this, it is possible to increase the volume of fruit and vegetable production, reduce the economic losses of producers, improve the system of scientific and information support, and form stable sources of income in domestic and foreign markets.

To achieve these goals, it is advisable to implement the following measures:

- deep reforming and increasing the efficiency of existing fruit and vegetable clusters;
- creation of high-tech, resource-saving processing enterprises that meet modern requirements and the construction of modern warehouses for them.

Selection work in fruit and vegetable growing is aimed at growing high-yielding varieties resistant to diseases and pests, adapted to climatic conditions, which plays an important role in the sustainable development of agriculture.

In Uzbekistan, a number of research institutions operate in the field of breeding and seed production. Among them, the leading place is occupied by the Uzbek Research Institute of Fruit and Vegetable Growing and Seed Production. State programs for the creation of new varieties and their introduction into production are also being implemented.

The field of breeding and seed production is important not only for achieving high yields, but also for growing environmentally sustainable agricultural products and ensuring food security.

Currently, when creating new varieties of fruit and vegetable crops, along with traditional methods, it is advisable to use advanced biotechnological and innovative methods. They include:

- study of imported and local varietal samples in quarantine areas;
- determination of the donor value of primary sources and assessment of their resistance to biotic (diseases and pests) and abiotic (heat, drought, salinity, etc.) factors under laboratory conditions;
- optimization of selection and testing stages in order to reduce selection processes;
- conducting seed production simultaneously with competitive variety testing using individual and mass selection methods.

For faster introduction of new varieties into production, it is necessary to intensify their seed production. This experience is currently being successfully applied in such countries as Canada, Russia, Mexico, and India.

In 2023, the share of local seeds in the production of vegetable products in Uzbekistan reached 83.4% (75.2% in 2022), that is, local seeds were sown on an area of 324.7 thousand hectares. At the same time, the import of seed products increased from 62.2 tons in 2022 to 65.6 tons in 2023 (Appendices 7-8).

Climate change also requires a review of scientific research in this area. In recent years, as a result of the dry and warm winter, the early onset of heat in summer, and the decrease in precipitation, a new approach to the policy of crop selection is required. Therefore, the creation of early-ripening and water-low-demanding varieties, the organization of modern in vitro laboratories, and the development of resource-saving agricultural technologies are becoming increasingly important.

Due to the lack of land and material resources in existing scientific institutions, the possibilities for expanding seed production are limited. This, in some cases, leads to dependence on foreign seeds. Therefore, expanding the scope of scientific research, increasing the number of competitions for innovative projects, and providing scientific institutions with additional land and modern equipment is a strategic task.

In conclusion, innovative approaches to the development of the fruit and vegetable industry in Uzbekistan, the creation of high-yielding and resistant varieties, the creation of intensive orchards, and the improvement of processing and storage infrastructure are of great importance. In this direction, it is possible to further increase the export potential of the industry by modernizing the breeding and seed production system, introducing modern resource-saving technologies, and supporting the domestic scientific potential.

LIST OF REFERENCES:

1. Presidential Decree of the Republic of Uzbekistan dated December 11, 2019 No. PP-4549 "On Additional Measures for the Further Development of the Fruit and Vegetable Growing and Viticulture Industry, Creation of a Value Chain in the Industry" according to
2. Resolution of the President of the Republic of Uzbekistan dated December 15, 2021 No. PP-52 "On Measures of State Support for the Fruit and Vegetable Sector, Further Development of the Cluster and Cooperation System in the Industry"

3. Gaffarov A. Productive forces of the Fergana region in the conditions of transition to a market economy. - T.: "Fan," 1994.

4. Grishayeva L. Conceptual Foundations of the Agrarian Market / L. Grishayeva // International Agricultural Journal. -2002. - No 1. -P. 21.