

PROPERTIES AND POTENTIAL OF WALNUT GROWING IN UZBEKISTAN

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ABSTRACT:

Despite the favorable climatic conditions for the cultivation of walnuts, Uzbekistan is not one of the main exporters of this product. Organization of walnut cultivation in Uzbekistan using the cluster method can be a solution to meet the needs of the processing industry in raw materials. Convenience of climatic conditions gives a great advantage in this direction. Large industrial walnut orchards in Uzbekistan can be created on a cooperative basis. An example of this approach is the experience of entrepreneurs who combine efforts to grow and use walnuts, acquiring 2 hectares of land for agricultural entrepreneurship. Procurement points will be able to form bulk batches of nuts, sell them on the domestic market or export them, acting in the form of service cooperatives.

KEYWORDS: walnut production, Uzbekistan, cooperation, walnut trade, procurement points, cluster method, efficiency.

INTRODUCTION:

The export of walnuts in the world is the most profitable and always in demand. Maximum 2 million tons of nuts per year are grown in China, but due to the large population, another 7 million tons of nuts are imported from abroad. Consumption of this product has increased by 20 percent over the past 4 years. The USA, Chile, Ukraine, China, and Moldova are among the largest exporters of walnuts.

Walnuts play an important role in the total exports of developing countries such as Chile, Ukraine, and Moldova. For example, in the season 2017/2018 Ukraine's income from walnut exports amounted to 131.5 million US dollars. For comparison, in 2017, the Uzbek auto industry exported cars, trucks, and buses for a total of \$ 143 million. Another example: Chile has increased its nut groves five times, planning to increase exports to about \$ 1 billion.

Despite the favorable climatic conditions for the cultivation of walnuts, Uzbekistan is not one of the main exporters of this product.

Research methodologies. The fact that our country rose to 8th place in the world in the production of walnuts in 2019 with an indicator of 56,116 tons [8] indicates a significant increase in production, but shows that we are not sufficiently using the natural resources of our homeland. Currently, our country is taking the first steps to create the conditions for creating intensive walnut groves, to achieve the development of the industry by providing farmers with the necessary recommendations and to take their worthy place in world markets.

By the Decree of the President of the Republic of Uzbekistan dated June 1, 2017 "On the establishment and organization of the Association of Walnut Producers and Exporters", the Association of Walnut Producers and Exporters was established in Uzbekistan. The decision is aimed at

encouraging the use of arable land and increasing its efficiency, increasing the production of competitive walnuts in domestic and foreign markets, the establishment of modern walnut plantations at the expense of attracting foreign investment and the widespread introduction of science-based methods and intensive technologies.

MAIN PART:

The areas where nuts can bear fruit are quite limited - only 7% of the globe's land area is suitable for this. Uzbekistan is one of the few countries in the world that is suitable for growing walnuts. In recent years, our country has become one of the leaders in the cultivation of walnuts. Uzbekistan, which has favorable natural climatic conditions for nut production and processing, has a strong potential resource base. The soil climatic conditions of the region allow organizing the production of nuts at the industrial level.

Up to \$50 million will be provided in the form of soft loans from international financial organizations to form walnut plantations. Until 2022, members of the Association will be exempted from customs duties on imported drip irrigation equipment, special agricultural equipment, walnut seedlings, scion, stock, grafting materials that are not produced in Uzbekistan.

In June 2017, Uzbekistan adopted a state program to increase the production of walnuts for 2017-2020. This program covers 4 stages:

- The first stage (2017 - 2019) - import of walnut seedlings into the republic;
- The second stage (2018-2019) - the supply of stocks and scion for walnuts;
- The third stage (2020) - production of high-yielding varieties of walnuts in the laboratory following the climatic conditions of the region;

The fourth stage (2018–2020) is the cultivation of walnuts and their sale in the domestic and foreign markets.

About 10,000 hectares of land will be allocated to create walnut plantations. Walnut groves will be planted in Andijan, Kashkadarya, Jizzakh, Namangan, Samarkand, Surkhandarya, Tashkent and Ferghana provinces of the country. In addition, loans of up to \$ 50 million will be allocated to finance projects aimed at creating such plantations.

According to the Association of Manufacturers and Exporters of Walnuts of Uzbekistan, the area of new walnut orchards in 2019 amounted to 10.7 thousand hectares, which is almost 3 times more than in 2015. The largest number of new walnut groves is located in Samarkand, Kashkadarya and Surkhandarya regions on an area of more than 5.9 thousand ha.

In 2017, an area of 500 hectares was allocated for walnuts, and in the spring season, walnut seedlings were planted. By 2018, the total area of walnut and almond plantations amounted to more than 5000 hectares.

In particular, the area of the newly created walnut orchards in Andijan province in 2018-2019 will be almost 2400 hectares. The number of walnut seedlings is more than 572,000. 550 jobs were created.

Gross harvest of nuts in Uzbekistan in 2019 amounted to 56.6 thousand tons.

Currently, the association includes more than 80 farmers from all over the country.

Walnut and almond orchards are being established throughout the country, including large plantations in Samarkand, Jizzakh, Kashkadarya and Surkhandarya provinces.

It is no coincidence that today scientists and specialists of the republic, heads of farms and dehkan farms of Andijan, Namangan and Fergana provinces, mature experts in their field are paying serious attention to this issue. Hundreds of peasants and farms can be found

in Yozyovan, Koshtepa, Altyaryk and Baghdad districts, which are developing desert lands and turning Central Fergana into a fertile area.

Members of farms in Yazyovan district pay special attention to the expansion of fences by planting walnut, grape, pistachio and almond trees in low-yielding areas of cotton, reproduction of fruit and ornamental trees.

Walnut is useful for everything: from bark to leaves, oil. Today, our region is actively working to create fertile gardens by planting walnut seeds and seedlings imported from China and Turkey into the desert zone.

It is known that the salinity of the lands of Central Ferghana is high, and in the desert regions there is not enough water. Therefore, these areas are suitable for creating intense walnut groves. The fact that the lands of the

Ferghana Valley are located at an altitude of 500-600 meters above sea level is a natural condition to ensure that the walnut tree does not dry from the sun.

ANALYSIS AND RESULTS:

In order to increase the cultivation of walnuts, it is expedient to organize the cultivation of walnut seedlings in the form of farms in Andijan region. The project prepared in this direction envisages the cultivation of walnut seedlings on an area of 6 hectares and planting on an area of more than 1,000 hectares. After four years, more than 3,000 tons of industrial-grade raw materials can be harvested. Investments in the project will amount to 150 billion soums and will be implemented in 2021-2030.

Table 1. Indicators of creation of walnut plantations in Andijan province in 2018-2019 *

№	Project place	Project period	Area, ha	quantity (thousand pieces)	project cost (mln.UZS)	including		payback period	gross product (tons)	gross income, UZS	created jobs
						at their own expense	at the expense of a bank loan				
1	Establishment of walnut plantations in Andijan province by members of the Association of Walnut Producers and Exporters	2018 year	721	212	1272	597	675	5 year	6922	20766000	195
		2019 year	850	200	1495	750	745	5 year	8160	24480000	215
	Total	2018-2019 years	1571	412	2767	1347	1420		15082	45246000	410
2	Establishment of walnut plantations on land plots in Andijan state forestry	2018 year	170	22	425	425	0	5 year	550	1650000	10
		2019 year	230	35,8	575	575	0	5 year	897	2691000	14

	Total	2018-2019 years	400	57,8	1000	1000	0		1447	4341000	24
3	Establishment of walnut plantations by farms in Andijan province	2018 year	191	45,8	765	337	428	5 year	1912	5736000	52
		2019 year	235	56,4	890	410	480	5 year	2256	6768000	64
	Total	2018-2019 years	426	102,2	1655	747	908		4168	12504000	116
	Overall	2018-2019 years	2397	572	5422	3094	2328		20697	62091000	550

* Source: Association of Walnut Producers and Exporters of Uzbekistan.

This project will allow developing a relatively new direction in agriculture. It is necessary to mobilize great efforts in Uzbekistan to develop the national industry that produces high-quality goods. It also helps meet the region's need for walnut seedlings.

So far, seedlings of more than 20 varieties of rare high-yielding varieties of walnut are being grown. It also grows seedlings of black walnut, chestnut, hazelnut, pecan, almond, pistachio and other nuts. In seedling cultivation, walnut varieties with different ripening periods are selected and can be harvested within 2 months.

It is planned to create a farm with a total area of 6 hectares, 1 hectare of land for a greenhouse for planting seedlings, and an orchard for intensive reproduction on 5 hectares.

In the future, more than 25 jobs can be created on the farm. It is planned to equip it with modern technologies and equipment.

The annual consumption of all types of nuts in Uzbekistan is 20-25 thousand tons. Therefore, the production of 3,000 tons of nuts per year is much less. More than 650 tons of

nuts are imported across the country, the production capacity is 40-45 thousand tons. Therefore, as a result of production on this farm is supplied only to local consumers, can not seriously compete with exporters who are market leaders.

On the other hand, it will be an important step towards reducing dependence on foreign products. Our country imports large quantities of nuts from the European Union, Japan, and Turkey. For example, in the confectionery sector alone, China's share is 4-4.5 thousand tons, while Turkey's is 2.5 thousand tons. In Europe, many nuts are also grown in Germany, Austria, Poland, Lithuania, and Spain.

Analytical materials show that the dependence on imports in the national nut market is high.

In recent years, the gross yield of walnuts has grown significantly. This is not hindered by factors such as its artificial production or falling prices (wheat or other raw materials in agriculture). Demand for this product is growing as more and more people around the world are focusing on healthy and wholesome nutrition, including nuts.

Many countries in the world, which import this product from Uzbekistan, also grow large quantities of walnuts. But unlike us, it is mainly sold in the domestic market. People who are wealthy and care enough about their health are eager to buy very cheap Uzbek nuts, even if they are not of good quality.

Based on comparative data of the Association of Walnut Producers and Exporters, the average annual consumption of nuts in Europe and the Gulf countries is 4.2-5.6 kg per capita, while in Uzbekistan this figure is only 1.8-2.4 kg. One expert pointed out the essence of the problem - there are enough nuts in Uzbekistan, but the population does not have the financial means to buy them. This environment widens the price gap in the domestic and foreign markets and strengthens the desire to export high-income products from our country in any way.

World market and favorable climatic conditions create conditions for the development of the national walnuts industry. However, the role of Uzbekistan in the production and export of high-demand products is unsustainable. This is hindered by differences in production and pre-sales for demanding customers.

World experience shows that a high-quality product can only be obtained from seedlings of selected varieties grown under industrial conditions. At the same time, the crop must be sorted, dried, and packaged in modern forms at well-equipped enterprises. However, this sector of the economy in Uzbekistan is underdeveloped. Walnut production is mainly carried out on private farms, which, according to various analyzes, make up more than 80-85% of the gross harvest. The largest enterprises involved in processing and processing nuts can be counted on the fingers of one hand. This means that the production, processing, and export of most nuts falls on the shadow market. Due to

insufficient organization of production based on market requirements, low control, enrichment of certain categories at the expense of the labor of small producers.

Significant progress has been made in the organizational work of the Walnut Association. The Association of Walnut Producers and Exporters has a significant impact on the solution of certain problems by involving scientists and practitioners in its work, in addition to outreach work.

The systematic work carried out since the establishment of the Walnut Association has shown full results. The work of the Association of Walnut Producers and Exporters, such as the modernization of the industry, the organization of industrial walnut groves, began to bear fruit. As a result of the analysis, it is planned to establish walnut orchards in almost every district for the last 3 years to increase walnut production by 10 times.

According to the Association of Walnut Producers and Exporters of Uzbekistan, the area of new orchards created by the walnut family in 2019 will be 10.7 thousand hectares, which is almost 3 times more than in 2015. The largest number of new coconut groves is located in Samarkand, Kashkadarya and Surkhandarya regions on an area of more than 5.9 thousand hectares.

Following the above decision, a total of 557 hectares of new walnut orchards were planted in Andijan region, a total of 223,000 walnut seedlings were planted on 151 hectares in 2017 and 406 hectares in 2018.

In Andijan region, 572,000 walnut seedlings were planted on a total of 2,397 hectares under the project to create walnut plantations in 2018-2019. As a result, 552 jobs were created.

According to expert analysis of the nut market, the average annual increase in the price of unpeeled walnuts over the past decade has been 8%, while that of peeled walnuts is

10%. Even exotic products cannot show such a steady increase in price. Unfortunately, national producers do not benefit enough from this. In this context, the modernization of a promising sector of the economy will have to wait a long time. Unless, of course, the rules of the game change, which serve to redirect financial flows in favor of producers and to balance domestic and foreign markets and bring prices closer.

Large industrialized walnut orchards can be established on a cooperative basis.

As an example of such an approach, entrepreneurs have the experience of combining efforts to plant and use walnuts, acquiring 2 hectares of land for agricultural entrepreneurship. Cooperation allows small producers to form large batches that serve to increase the value of the product, and they participate in all trade and economic processes of the product they grow. Thus, by reducing the activity of the shadow market, budget revenues will increase.

CONCLUSIONS:

As a result of the development of the production of high-demand products in Uzbekistan, such as walnuts, hazelnuts, almonds, pistachios, some consumers will be able to buy nuts at relatively low prices, saving on transportation costs. In general, the organization of walnut cultivation in our country in the cluster method can be a solution to meet the needs of the processing industry in raw materials. Because the convenience of natural and climatic conditions offers a great advantage in this direction. In particular, in the conditions of Andijan region for walnut seedlings in winter, there is no sharp drop in temperature. Walnut growing clusters are exciting and promising, guaranteed a consistently high demand by the confectionery industry and other consumers.

The development of similar nut growing clusters in almost all parts of the country is of great importance. It would be expedient to invest in the production of nuts and almonds. Also, the ability of walnut growers to produce a long-term quality crop for more than 100 years demonstrates the advantages of developing a walnut processing industry. But investments in this area will pay off in the long run, walnut seedlings will be harvested only after 4-5 years.

Establishment of modern high-yielding plantations of walnuts, almonds and pistachios, the widespread introduction of science-based and water-saving technologies, promotion of measures to increase production of walnuts, almonds, and pistachios, conduct marketing research and expand exports. multiplication is necessary.

It is recommended to plant Chandler, one of the varieties of walnuts recommended for planting based on scientific research and world experience, and suitable for the weather conditions of the country.

It is expedient to establish large industrialized walnut orchards in all regions, which can significantly change the situation for the better, and to organize them in farms, agro-firms, small landowners in cooperatives. Production and export of agricultural products, which are in high demand and efficiency in the world, is one of the important directions for further development of the agricultural sector through the efficient use of land. If these cooperatives receive real mechanisms for the use of the resources given to them, it will be possible to radically improve the situation in the nut industry.

In the transparent system of procurement and export, the newly established procurement points will play an important role. By operating in the form of a service cooperative, they will be able to form wholesale batches of products, sell them on the domestic market or export

them. This will help increase the welfare of the population by creating new jobs in rural areas.

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