European Proceedings of Social and Behavioural Sciences EpSBS

www.europeanproceedings.com e-ISSN: 2357-1330

DOI: 10.15405/epsbs.2020.03.192

II International Scientific Conference GCPMED 2019 "Global Challenges and Prospects of the Modern Economic Development"

UZBEKISTAN IS ON THE WAY TO BRINGING WALNUTS TO THE WORLD MARKET

U. R. Sangirova (a)*, Sh. M. Murodov (b), S. A. Dustnazarova (c)
*Corresponding author

- (a) Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, 39 Kari Niyazov ko'chasi, Tashkent, Uzbekistan, sb.i.l@mail.ru
- (b) Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, 39 Kari Niyazov ko'chasi, Tashkent, Uzbekistan, msm-ogli@mail.ru
- (c) Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, 39 Kari Niyazov ko'chasi, Tashkent, Uzbekistan, sanobarataullayevna@mail.ru

Abstract

Nowadays, the country's economy does not care only about its financial condition, but also about social security, maintaining a healthy way of life of the population. Current agricultural issues address aspects related to increasing crop yields aimed at maintaining healthy way of life and improving the country's financial well-being. Nuts have long occupied their niche in the world market. There are well-known leaders in growing delicious types of nuts, Iranian pistachios, Brazilian nuts and so on are well known to all. Nuts are not whimsical culture, which allows you to economize on equipment, premises for its cultivation. With minimal capital investment, you can double the refund and even more. President of Uzbekistan Sh.M. Mirziyoyev urges people to engage in nut business, allocates various subsidies, creates conditions for the effective development of walnut gardens. The aims of the ongoing reforms in the field of walnut cultivation in Uzbekistan are to create decent competition in the world market, to improve the well-being of residents, to inform about small costs, and opportunities for high profits. This article analyzes the benefits, both for humans and for the economy, nut crops, on the example of walnuts. Reforms in Uzbekistan's economy in relation to walnuts are described. The types of walnuts that bring the most profit are highlighted. The place of different types of nuts in the world market is analyzed. Ways to get the maximum benefit without losses are disclosed. A small calculation of the cost of creating walnut gardens is carried out.

2357-1330 © 2020 Published by European Publisher.

Keywords: Walnuts, chandler, global market, use, investment, break-even.

1. Introduction

The main task of any state is to provide food to the population. The level of food security expresses the sustainability of the economy, especially the stability of the agricultural sector, aimed at meeting the needs of the population in food. Food supply has always been one of the main and pressing issues of the modern economy. In the development of the agricultural sector of Uzbekistan there was a problem of monoculture, more fertile land was transferred to grow raw cotton, the system of stimulation of agricultural production was withdrawn, all farms have operated as a collective, with no motivation to develop the sector. Uzbekistan has gone through a difficult path to food security in a short time, radically reformed and reoriented its agro-industrial complex.

A significant decision in agricultural policy was the diversification of agriculture, the abandonment of the monoculture of cotton, the improvement of the affairs of self-sufficiency in food products and the development of the processing industry. This was the starting point of the economy of Uzbekistan's agricultural sector.

Worldwide, the UN Food Commission is actively agitating for the production of quality, environmentally friendly and high-calorie foods for humans. In our modern world, one of the indicators of the well-being of the people is the presence of nuts in the human diet, which brings the mechanism of commercial production of nuts into an active state, and their processing is expanded industrial.

Nut plantations are of great interest in the global economic market. Nuts are almost waste-free. Some types of nuts can bear fruit for up to 300 years, which will increase not only their own the capital, but also is passed on to descendants.

The use of nut crops has been known for a long time. Nuts have special properties, they have a high nutritional value, help to keep the level of cholesterol and sugar. They are rich in vitamins such as A, E, C, B and contain a large amount of micro and macronutrients. Another hallmark of nuts is that they keep all the nutrients for a long time, compare to fruits and vegetables that lose most of the minerals and vitamins during winter storage.

The most common types of nuts are walnuts, peanuts, almonds, pistachios, hazelnuts, chestnuts and so on. Nuts have special taste qualities, they can be eaten in a ready-to-eat form, as well as nuts are used in the manufacture of confectionery, in the preparation of the first, second dishes and so on. In addition to the use of nut crops in the food industry, they are also used in the production of wood for furniture. Black walnuts are distinguished, due to the ease of processing and unusual texture.

The shell of nuts is used in medicine, agriculture, as fertilizer, in cosmetology, as fuel and so on. The immature fruits of nuts can also be used. So, immature walnut fruits are used in brewing jams, pickles, etc. Below is a diagram of the areas where nuts are used.

Many authors have conducted research on this topic (Grant, Caprile, Doll, Anderson, Klonsky, & de Moura, 2013; Habashi, Zomorodi, Talaie, & Jari, 2019; Ibrahimov, 1984; Schepotiev, 1978; Shamsiev, 1982).

2. Problem Statement

The problem of this research is determined by the following aspect:

- the population's weak interest in walnut cultivation;

- there is no competition within the country in the field of nuts;

- farmers don't know how to make good profit from walnut orchards.

3. Research Questions

The main research questions are the following ones:

Why is it important to develop nut cultivation not only for the health of the population, but also for the country's economy? How to enter the global market and create a healthy conference? How to get the most profit and faster to reach the break-even point?

4. Purpose of the Study

This study is aimed at analyzing benefits of nuts for a healthy lifestyle of the population. The authors identify the place of walnuts in the global market and the importance of competition and their offer for a faster solution of a problem is to find a way to quickly gain profit.

5. Research Methods

The method of observation and analysis of the market of walnuts in Uzbekistan was used.

A comparison is made between other significant countries in the walnut market.

6. Findings

On June 1, 2017, President of Uzbekistan Sh. Mirziyoyev adopted the resolution NoPP «On the establishment and organization of activities of the association of manufacturers and exporters of walnuts» The resolution outlines the Program of Measures to further increase the production of walnuts for the period 2017-2020. This program provides a plan for 4 years, delivery of seedlings, adaptation to the natural and climatic resources of our region, production and sale on the domestic and foreign markets (Decree of the President of the Republic of Uzbekistan Sh. Mirziyoyev..., 2017).

Until now, people have not paid much attention to nut gardens, for the purpose of obtaining economic benefits. In remote settlements wild types of nuts are simply cut down for firewood, leaves are used for livestock. The development of nut plantations has its difficulties, costs, it is exposed to great risk, but in the future can bring good profits, without further contributions. A person once can invest in the nut industry, and get an increasing profit every year without further investment.

The Association of Walnut Producers and Exporters is engaged in organizational work to create walnut feed plantations, increase export volumes, and attract investment. Also, in 2017, the first seedling production company in Central Asia was created, "Mevali Plants" was created in cooperation with Turkish businessmen. So from the side of this large organization support was also made in the development of walnuts. They created a new kind of walnut "chandler walnut". The goal was to create a frost-resistant, fruitful kind of nuts that yields delicious fruits that can compete with the world market.

It should be noted that there are about 2,700 species of nuts in Uzbekistan, and scientists continue to create new varieties of nuts. The culture of walnuts stands out. The Republic of Uzbekistan has a rather favorable climate for the development of the nut industry. Scientists who conducted research in this area found that the most favorable for creating nut plantations are considered to be the foothill areas of Bustanlyk, Tashkent region, Parkent, Akhangaran, Ferghana Valley, Jizzakh region, and the mountain areas of Andijan, Samarkand, Surkhandarya, Navoi, Kashkadarya region.

Walnut is not a capricious culture, does not choose land, is frost-resistant. The period of growth and development of the walnut tree is about 5-7 months. A walnut tree can live for about 400 years. During fruiting, it can bring up to 150 kg of nuts from one tree, and some species up to 500 kg of crop.

For example, Chandler walnuts are grown in mountainous areas. Harvest of this tree variety is harvested for 3 years of flowering. Nuts that have reached the age of 8 years give about 40 kg per tree. So from one hectare of age 8 years, you can collect about 8 tons of nuts. Considering that 1 kg of walnuts on average costs about \$ 1.2, you can get \$ 9650 from one hectare of 8-year-old Chandler walnut. From a walnut tree of this variety, aged 15-20 years, you can get up to 200 kg, which means that the profit is correspondingly greater.

From an economic point of view, growing nuts has a number of drawbacks and advantages.

- -Small amount of initial capital, the main costs are land, saplings and special equipment.
- The tree begins to bear fruit well for the 5-7th year, that is, the costs can start to pay off only in the 5th year, which scares many farmers.
 - Nut trees are very tolerant of cold and heat, fit our climate, can bear fruit for more than 100 years.
 - Store nuts very simply, they are quite dry ventilated room with a low temperature.
 - Small competition. A small part of the business sector is engaged in nut farming.
 - Nuts are easy to sell, not only in Uzbekistan, but all over the world are in high demand.

In recent years, organic products have become popular. Products with an "organic" certificate are very popular. Such a certificate obliges to trace the process of cultivation and processing. Switzerland and Germany are the leaders in the import of organic nuts.

The price of so-called organic nuts exceeds the usual market price by an average of 25%. This certificate guarantees the naturalness of both the process of cultivating nuts and processing them.

Another new trend is mixed gardens. Nuts grow for a long time; it has already been said that nuts usually begin to bear fruit well in the fifth year. In this regard, to reduce the payback period between rows, other crops are planted, the most popular are pears. They can be grown for 10-15 years, during which the nut will only grow and not take up much space. In the meantime, as the nut grows, you can profit from another crop. The yield of walnut for the tenth year will be about 1.5 tons per ha, and the pear in the second year of flowering will yield 1.5 tons per ha. In such a combined garden, the break-even point will reach the fourth year, all the income at the beginning of the period will be brought only by the pear, and by the fifth year the project can fully pay off.

7. Conclusion

In conclusion, we can say that the cultivation of walnut orchards, like any other culture, has its own nuances. The main thing in the walnut business is patience; walnut farming yields its financial

eISSN: 2357-1330

benefits at a later date of flowering. If you take into account all the risks, then you can enter with a good profit on the world food market. With the support of the President the republic of Uzbekistan. Various loans and subsidies are allocated for promoting the nut business on the world market. The number of exported nuts has increased significantly in recent years.

Nuts have almost no expiration date, which allows them to be stored for a long time in warehouses and sold for a long time. Often, sellers do not have time to realize the old batch before receiving a new young nut.

Entrepreneurs should think about selling not only the kernels themselves in their pure form, but also the possibility of processing and marketing shells and nuts. This will allow not only to conduct non-waste production, but also to get the maximum benefit from business in various fields of entrepreneurship.

If we analyze what the economic value of nuts on the market is formed from, it's worthwhile to dwell on the fact that the main expenses are on the processing of the nuts themselves, rather than on their cultivation or harvesting. Due to the ongoing reforms, Uzbekistan is rapidly expanding its export potential. So according to East Fruit in 2018, the amount of walnut exports to Russia reached \$ 16.6 million.

Experts say that in order to increase the price of exported walnuts, it is necessary to bring its original form to marketability. In order to contribute to this, it is necessary to build factories and warehouses, which is an additional cost item. With 200 hectares of gardens, the approximate cost of building a plant with an appropriate capacity is \$ 2 million.

Walnuts are exported to many countries around the world. The world leaders in walnut producers today are the United States, Chile and Ukraine. Uzbekistan, Georgia and Moldova expand the area under crops. Walnut prices vary from country to country. For comparison, several countries can be cited, their approximate pricing policy regarding walnuts for March 2019 (table 01).

Table 01. Walnut pricing policy, March 2019

Country	Walnut price, dollar / kg
Uzbekistan	7
Russia	8,33
Tajikistan	6,36
Georgia	7,42

The walnuts market is very extensive, and peculiar. There are unaffected markets for nuts, one of which is India. In India, they are not particularly familiar with this type of nut; it is possible that marketing to this country will have huge potential, which will add this country to the list of large consumers.

The market of countries where the religion of Islam prevails among the population is also promising. To increase the demand for products in these countries, manufacturers are joining Halal certification. Such a certificate is not required for walnuts, since they are a plant product. However, the Halal certificate for walnuts will allow you to move away from supply standards and add a twist to your products and expand the market for products. In many countries, Halal chain stores are gaining popularity, where they sell products exclusively with a Halal certificate.

One of the most common marketing moves of local entrepreneurs is packing nuts in small bags, ready for one-time consumption. Very popular and on the shelves in each store are small packets of nuts weighing 100-250g. Consumers are interested in such products, you can use such a volume on the go.

And for producers this will bring great profit, since mini packs are sold more often than the weight

category of products, as well as a sufficient price increase for mini packing of nuts.

Suggestions

The Association of Walnut Producers and Exporters, which was established on June 1, 2017, helps young start-up entrepreneurs and already established farmers to delve into and plunge into the details of walnut orchards. The Association teaches you to competently prepare walnut garden projects and a business plan for developing walnut orchards, familiarize yourself with the latest popular information on walnut growing in the world, and advise on the selection of suppliers of seedlings, fertilizers, and

equipment related to the walnut business.

The development of the nut business in Uzbekistan allows not only to enter the world market with these products, but also to involve the able-bodied population. In January 2019, the President of the Republic of Uzbekistan visited one of the largest walnut orchards in Uzbekistan in the Kashkadarya region, Yakkabog region of Sag agro Yakkabog LLC, where 25 billion soums were spent on walnut and almond plantations with a total area of 1,140 hectares. A walnut plantation should bring 7 thousand tons of walnut fruit, and in such a vast territory employment of people is ensured, in the amount of 500 people. Such an enterprise intends to export 60% of the grown products. The President noted that more such

plantations should be created.

(per 1 square meter):

Walnut farming has high economic efficiency. Profitability for the 5th-6th year of fruiting can reach 400-500%. This indicator is higher than that of any other crop, for example, such as corn. One of the attractive aspects of growing walnuts is the low investment per 1 square meter. Initial costs include

Layout of the future walnut garden - \$ 25

Preparing the area for landing - \$ 10

Preparing pits for seedlings - \$ 8

Purchase of seedlings - \$ 7 per seedling

Transportation of seedlings - \$ 1.5

Planting seedlings and fertilizers - \$ 10

Salary - \$ 12

In total, the cost per investment is \$ 74 per 1 square meter. These costs are in the first year, in subsequent years there will be less cost, and the trees will bear fruit for a long time, up to 100 years, and the number of crops will increase. For example, for the 5th year from 1 ha of walnut orchard, you can get

640 kg of fruits.

References

Decree of the President of the Republic of Uzbekistan Sh. Mirziyoyev of June 1, 2017 "On the establishment and organization of activities of the association of manufacturers and exporters of walnuts" No. PP-3025 (2017). Retrieved from: http://lex.uz/docs/3225164 Accessed: 10.10.2019. [in Rus.].

1345

- Grant, J. A., Caprile, J. L., Doll, D. A., Anderson, K. K., Klonsky, K. M., & de Moura, R. L. (2013). Sample costs to establish a walnut orchard and produce walnuts. California: University of California Cooperative extension. Retrieved from: https://coststudyfiles.ucdavis.edu/uploads/cs_public/6d/d5/6dd51838-68ce-4294-83a5-1eeb460baeda/walnutvn2013.pdf Accessed: 10.10.2019.
- Habashi, R. T., Zomorodi, S., Talaie, A., & Jari, S. K. (2019). Effects of chitosan coating enriched with thyme essential oil and packaging methods on a postharvest quality of Persian walnut under cold storage. *Foods and Raw Materials*, 7(1), 18-25. https://doi.org/10.21603/2308-4057-2019-1-18-25
- Ibrahimov, Z. A. (1984). Substantiation of methods for creating and increasing the productivity of industrial walnut plantations in the Azerbaijan SSR. (Ph.D. Thesis). Pushkino: All-Union Order of the Red Banner of Labor Scientific and Technical Institute of Forestry and Forestry Mechanization of the State Forestry of the USSR. [in Rus.].
- Schepotiev, F. L. (1978). Walnut. Walnut fruit crops. Moscow: Forest Industry. [in Rus.].
- Shamsiev, K. Sh. (1982). Recommendations for the cultivation of industrial plantations of walnuts and pistachios in Uzbekistan. Tashkent: Forest Research Institute. [in Rus.].