

## **Investments in Georgian olive production**

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### **Abstract**

More than 300 varieties of olives are known. 10% of them are of Georgian origin. This plant was known in Georgia several hundred years ago. Olive trees are spread along with laurel plants on Urta Mountain. Some plants are also found in Baghdad, Chokhatauri, Senaki, Khobi, Terjola, New Athos, Gurjaani and Signaghi districts. Olive culture has been widespread in Georgia, in the arid subtropical zone of Abkhazia and Kakheti. We have historical facts about the existence of olives in Georgia. Olive cultivation was started by monks in New Athos in 1879 and a large plantation was planted. After sovietization, this plantation was transformed into a Soviet farm. Under the then political regime, the plan could not be implemented, the olives were replaced by another crop. Lives on average more than 300-400 years (there are also older trees). It is also known that olives were abundant in Tbilisi at the end of the 19th century and the beginning of the 20th. At the beginning of the 20th century, olives were cultivated intensively in Georgia. Every year 60-78 tons of fruits were harvested, from which canned food, marinades, and olive oil were made. In Tbilisi, on the Sololaki ridge, near the Botanical Garden, there was an oil variety - "Tbilisuri", which is now preserved only in Abkhazia. After 1927, olives became a foreign culture for Georgia. Its production, according to the centralized management of the state, was instructed to the Republics of Azerbaijan and Turkmenistan, while the cultivation of other crops began in Georgia. In particular, tea and citrus in western Georgia, apples and vines in eastern Georgia. Olive crop production in Georgia has good prospects. There is great interest in this unique plant, which provides a good opportunity to diversify the fruit assortment and improve the economic conditions of the country. Today, new plantations are cultivated in different regions of Georgia, mainly with seedlings imported from Turkey. Unfortunately, the old varieties no longer exist, or are preserved in the form of separate trees. Therefore, the first task is the restoration of olive varieties ("Tbilisuri", "Akhasheni", "Butko", etc.), which were distinguished by good adaptability and resistance. For this it is necessary to find still surviving varieties, to establish nurseries, to multiply Georgian varieties and to introduce

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them in production. Expansion of oil fruit plantations for Georgia will become a source of additional employment. Increasing olive oil production will create 800, 1,000 jobs.

**Keywords:** investment, production, employment, competition, promotion.

### **Introduction**

Agriculture was a priority for all governments, and all governments included the Ministry of Agriculture, which spent significant funds on the development of the sector. Agriculture has been declared an even more important sector in Georgia since 2013 and has received more funding than before 2012. The free plowing-sowing program proved to be particularly productive, leading to an 11.3% growth of the sector in 2013. However, after that, in 2014-2015, the growth rate decreased to 1.5%, and in 2017-2018, instead of growth, the sector experienced an annual decrease of about 3% (Jincharadze B. 2018.1). Products manufactured since 2016 has been reduced by about 100 million GEL. Both sown areas and the number of cattle have decreased. In total, the Georgian government spent more than one billion GEL in 2013-2018 to support agricultural development. This amount was allocated for preferential agro-credit, free plowing-sowing, financing of enterprises, project "Implement the Future", Georgian tea restoration program, agro-insurance, subsidizing the price of grapes and citrus, agricultural machinery, scientific research in the field, etc. In addition to the mentioned billion GEL, more than 300 million GEL was spent separately on the restoration and construction of reclamation infrastructure (Gelashvili M. 2018.2). Given the existing natural resources, is it possible to develop agriculture in Georgia in such a way that Georgia becomes a unique country in terms of agro-food products, to replace imports with local products and make agriculture one of the most important components of rapid economic growth? 80% of the consumer basket is imported to Georgia. At the same time we have all the necessary natural resources and conditions to produce these products locally instead of importing them. However, local production cannot replace imports. This data needs to be explained and analyzed. Most of the food products imported to us are the result of industrial production, be it dairy products, meat products or cereals. Economies of scale and modern technologies are crucial for the competitive production of food products in the twenty-first century. Industrial production, the technologies used in it, and economies of scale are the only way for competitive production of mass-produced agricultural products. Starting local production is not a problem in itself. Production, taken in isolation, is by no means a challenge and a difficulty. The main thing is to produce what is competitive and at the same time so that the producer remains profitable (Jincharadze B. 2015.4).

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**Methodology:**

During the research we used general scientific methods: analysis, synthesis, observation, hypothesis and analogy.

There are more than 300 varieties of olives known in the world, more than 300 varieties of olives are known. 10% of them are of Georgian origin. This plant was known in Georgia several hundred years ago. Olive trees are spread along with laurel plants on Urta Mountain. Some plants are also found in Baghdad, Chokhatauri, Senaki, Khobi, Terjola, New Athos, Gurjaani and Signaghi districts. Olive culture has been widespread in Georgia, in the arid subtropical zone of Abkhazia and Kakheti. We have historical facts about the existence of olives in Georgia. Olive cultivation was started by monks in New Athos in 1879 and a large plantation was planted. After sovietization, this plantation was transformed into a Soviet farm. Under the then political regime, the plan could not be implemented, the olives were replaced by another crop. Lives on average more than 300-400 years (there are also older trees). It is also known that olives were abundant in Tbilisi at the end of the 19th century and the beginning of the 20th. At the beginning of the 20th century, olives were cultivated intensively in Georgia. Every year 60-78 tons of fruits were harvested, from which canned food, marinades, and olive oil were made. In Tbilisi, on the Sololaki ridge, near the Botanical Garden, there was an oil variety - "Tbilisuri", which is now preserved only in Abkhazia. After 1927, olives became a foreign culture for Georgia. Its production, according to the centralized management of the state, was instructed to the Republics of Azerbaijan and Turkmenistan, while the cultivation of other crops began in Georgia. In particular, tea and citrus in western Georgia, apples and vines in eastern Georgia. Olive crop production in Georgia has good prospects. There is great interest in this unique plant, which provides a good opportunity to diversify the fruit assortment and improve the economic conditions of the country.

Olive is an evergreen plant, the homeland of olives is considered to be the countries of the Mediterranean basin, where this crop has been cultivated since ancient times. Olives are rich in vitamins A, B1, B2, B4, B5, B6, B9, E, and K. It contains large amounts of unsaturated fatty acids to maintain normal cholesterol levels, prevents the development of atherosclerosis, heart attack, stroke and other cardiovascular diseases, as well as has a positive effect on the digestive tract, thanks to the antioxidants contained in the fruit, it is the best way to prevent premature aging and oncological diseases.

Olive is one of the oldest plants on earth, which has an important place in religious literature. About 3500 BC, the prophet Moses described Israel as a gracious, olive country. The whole landscape of Israel is still strewn with olive groves. They cover the plains of

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Sharon, the rocky slopes of Samaria, and the fertile fields of Galilee. Olives are mentioned several times in Scripture.

Olive oil is made from olives, its production is a difficult and time-consuming process in which most of the work is done by hand following the established rules. The soil for the olive oil plant is cultivated according to especially strict rules and neither soil nor plant growth will be allowed to be treated using chemicals. Olive oil is harvested when the fruit has accumulated the maximum amount of oil and its juice is more aromatic and at this time the fruit has the best taste properties. During the harvest, each plant is put in a grill so that the fallen olives are not damaged and do not come into contact with the ground. (Jincharadze B. 2015.11).

„Inosystem” Ltd. started processing the olive oil production project in Georgia on October 20, 2018. Relevant works were performed in both architectural and technical and technological directions.

**Table # 1  
Orientating cost for garden cultivation and planting (1 ha)**

| <b>agricultural measure</b>        | <b>Unit of measure</b> | <b>Quantity</b> | <b>Unit price (GEL)</b> | <b>Total cost (GEL)</b> |
|------------------------------------|------------------------|-----------------|-------------------------|-------------------------|
| Soil analysis                      | ha                     | <b>1</b>        | <b>300</b>              | <b>300</b>              |
| Clean the plot from debris         | ha                     | <b>1</b>        | <b>300</b>              | <b>300</b>              |
| Plantage                           | ha                     | <b>1</b>        | <b>250</b>              | <b>250</b>              |
| Application of mineral fertilizers | kg                     | <b>400</b>      | <b>1.25</b>             | <b>500</b>              |
| Ploughing and loosening            | ha                     | <b>1</b>        | <b>200</b>              | <b>200</b>              |
| Cultivation, levelling             | ha                     | <b>1</b>        | <b>120</b>              | <b>100</b>              |
| Plot planning                      | ha                     | <b>1</b>        | <b>150</b>              | <b>150</b>              |
| Remove the pit                     | pieces                 | <b>500</b>      | <b>0.20</b>             | <b>100</b>              |
| Purchase of seedlings              | pieces                 | <b>500</b>      | <b>6.00</b>             | <b>3000</b>             |
| Planting                           | pieces                 |                 | <b>0.20</b>             | <b>100</b>              |
| Total                              | -                      | -               | -                       | <b>5000</b>             |

- The architectural project of the enterprise has been processed.
- In the technical-technical unit, the search, processing and proposal of the necessary materials and documentation were offered to the customer;
- Selecting and calculating modern technological equipment in the technical area, taking into consideration the real conditions existing in Georgia, for further effective use;

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- Technological component - Selection of new innovative technologies in accordance with the selected technological equipment, resulting in the production of products produced as comparable to the local market, as well as in the production of foreign products.
- Finding and processing standard documentation for practical implementation - strict compliance with the technological process parameters that ultimately ensures high quality products and human consumption of food;
- As soon as the harvest takes place, it will be quick to put it in the mill as soon as the best quality olive oil is obtained.  
Technological process of olive oil production;
- Supply of olive oil in the mill;
- When entering the mill, the fruit passes through the ventilation zone where the leaves flow through the flow of air;
- Sorting of fruits according to quality;
- Washing with water;
- Pulling the stone wheels with cold pressing method. In the production of olive oil the temperature should be no more than 35 °.

There are two methods of pressing, which are most commonly used in traditional.

1 method - In the traditional method of pressing, the crushed Olive porridge is placed in small rounded baskets, which are held on each other and is pressed from the top. Compared with water, the oil of the density of oil is separated from the water.

| <b>Indicative estimate of the works to be carried out in the first year</b> |  |
|---|--|
| <b>agricultural measure</b>   | <b>Cost of products and services (GEL)</b> |
| Watering 5 times  | 150  |
| Purchase and apply nitrogen fertilizers 2 times                             | 300  |
| Treatment with insecticides and fungicides 5 times                          | 800  |
| Hoeing the soil 2 times   | 500  |
| Purchase and apply herbicides 2 times                                       | 350  |
| Mowing 5 times  | 200  |
| <b>Total</b>  | <b>2300</b>                                |

### **Indicative income received from a full-fledged garden (1ha)**

| <b>Culture</b> | <b>Number of roots (1 ha)</b> | <b>Harvest 1 tree (kg)</b> | <b>Harvest (on 1 ha)</b> | <b>Price of 1 kg of fruit (GEL)</b> | <b>Total income (GEL)</b> |
|----------------|-------------------------------|----------------------------|--------------------------|-------------------------------------|---------------------------|
|                |                               |                            |                          |                                     |                           |

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|                |            |           |              |             |              |
|----------------|------------|-----------|--------------|-------------|--------------|
| <b>Culture</b> | <b>500</b> | <b>25</b> | <b>12500</b> | <b>1,20</b> | <b>15000</b> |
|----------------|------------|-----------|--------------|-------------|--------------|

The II method is modern, centrifuged, where the effect of centrifugal force is obtained by the same result. (Production of the first Georgian olive oil started in Sighnaghi, [Online].13)

After delaying the oil, the final product-unrefined olive oil is obtained. The oil obtained by this method is a bit bitter, which proves that it is made from fresh olives without filtration, which retains its natural properties. Although the production (receipt) of unrefined olive oil is relatively simple and has not changed over the centuries, the highest quality olive oil can be still obtained by the centuries-old method - only in accordance with the strictly observed rules, after the express, the oil is carefully inspected according to the standard indicators, after which it is determined which category the obtained product belongs to. Oil that does not fall into the highest category, it is subject to refining. Refining- this is the process of purifying an oil from various impurities and acids. Dregs (mass), which will remain after expressing olive, is subjected to re-processing by chemical and heat treatment method, resulting so-called oil is obtained from olive dregs. Others also grow this fruit in Kakheti. Many natural and legal entities are involved in this business: too many people have olive gardens in Dedoplistskaro, Kvareli, Telavi. Companies also buy products from them and increase the quantity in this way. (L. Mikava. 2014.9)

The expansion of olive plantations will become a source of additional employment and creat stimulate development for the region. Increasing olive oil production will create new jobs.

Years ago, representatives of the diaspora in different countries, who had contact with Georgia from Turkey, the Netherlands, came up with the idea to revive olive production in Georgia. The Patriarch of Georgia blessed this work, he always said that olives would definetly grow well in Georgia. These families brought about ten experienced experts to Georgia, who began to study the soil and temperature in Georgia. 250,000 olive seedlings were imported, olives were planted almost all over Georgia: in Baghdadi, Ozurgeti, Kakheti, etc. This initiative was facilitated by the favorable tax environment, these firms pay about 50% of the profits to the state tax system in the same Netherlands and Turkey. In Georgia, the support of the current state is reflected in the fact that if you reinvest the profit, the profit tax is almost zero, this is the biggest support from the state. (Bitsadze M. 2020. 3)

It all started with 10 000 seedlings, which were cared for for 5-6 years, then they got the first Georgian olive, gradually planted additional seedlings, cultivated a plantation and finally, decided to build an olive processing plant.

Olive seedlings grow 10-12 centimeters higher in Georgia than in Turkey. As for the fruit, the skin is thinner and the stone is smaller, which indicates the quality of the olives. Georgia has shown the world that it can produce the highest quality olives and olive oil. As for the olive as a raw material, according to the world data, from 4-5 kg comes out about 1

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liter of oil, and from 3 kg olives grown in Georgia - 1 liter. This is a pretty good and impressive result. (T. Iobashvili. 2015.8)

Georgia imports 200 tons of olive oil a year and it is the second or third grade olive oil. Georgian enterprise is going to bring products to the market at a rather low price and the quality of the product is much higher compared to the imported product. Popularization of brand is also important. A small number of products will be brought in on the market, but with high quality. If a Turkish company sells a liter of oil for about 30 dollars, Georgian-made oil will cost 10 dollars (Bitsadze M. 2020. 3)

Tbilisi (GBC) - Olive processing has started in Georgia. The company "Georgian Olive" has opened the first olive processing plant equipped with modern technologies in the village of Sakobo, Signaghi Municipality. The "Georgian Olive Company" has oil-gardens on 300 hectares in Dedoplistskaro and Signaghi districts. The plant was built with Dutch-Turkish investment and in cooperation with the Agricultural Project Management Agency within the "Agricultural Products Processing and Storage Enterprises Co-financing" program (345 800 USA dollars). A total investment cost is up to 5 million GEL. ("Preferential Agro Credit Program" 2014.6).

The olive plant is equipped with ultra-modern technologies, which gives opportunity to produce high quality competitive Georgian products. Productivity of plant enables to produce several hundred tons (10 tons per hour) of the highest quality olive oil of olive marinade and extra virgin. Olives grown in Georgia will be used as raw materials. The products are designed for both the local market and for export. The target markets are the Transcaucasian countries, America, Europe and the CIS area. Working on the project started 7 years ago with the support of the Patriarch and the Georgian Diaspora. The companies "Georgian Olive" and "Geo Olive" invested several million in the project, as a result, an olive plantation, 250 thousand olive seedlings, were planted on 300 hectares. The company will process the first harvest of Georgian olives in its own enterprise. This is a unique case to offer a Georgian product to the customer, both inside the country and to export it. (A. Tsertsvadze. 2015.7)

This is a diaspora investment, our compatriot who left Georgia has invested and planted olive gardens, in total there are more than 200 hectares. A processing enterprise was opened here in Kakheti region. It employs more than 1 00 people and produces organic, biologically pure olive oil as well as packaged olives. Through agricultural promotion programs, they have funded a number of interesting projects in the region.

The company pours two types of olive oil (black and white) in 250, 500, 750 gram glass jars and 5, 10 and 18 liter tin cans, to the highest standards, using cold pressing technology.

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The company plans to produce 30 tons of olive oil in 2019, which it will sell in the local market in the first stage and intend to export in the future.

250 grams of olive oil costs 8 GEL, 500 grams 13 GEL, and 750 grams 16 GEL. Georgian olive oil will be sold in 5 liter tin jars for 95 GEL, 10 liter for 175 GEL and 18 liter for 300 GEL. ("Georgian Olive" oil is already on sale. [Online]. 14)

On May 25, 2019, the products first entered the Carrefour chain of stores, AgroHub, Nikora and other stores selling Georgian products. In addition to olive oil, olive marinade is also produced. At the moment, only imported products are sold on the market. The price is low compared to the imported one, and the quality is high. Due to the quantity, the oil will be sold only in Georgia. They also plan to export next year's harvest to the Transcaucasia. At the moment, the plant is making olive marinade, which will appear for sale on the market in a month.

Export is one of the important steps of the enterprise. Their goal is to enter the market of America, Europe, Russia and other countries. They also work in marketing and PR and try to study the market, tax and transportation systems of the countries where they intend to export their products. (Georgian olives double the investment and prepare to enter world markets. [Online]. 15)

In 2018, within the framework of the business visit of the Georgian "Partnership Fund" to China, a formal agreement was reached with the largest investment company in China regarding the export of Georgian olives. On the exhibition held within the framework of the International Business Forum in Jiangxi Province, in which Georgian entrepreneurs participated with the support of the "Partnership Fund", aroused great interest in Georgian natural products from Chinese importing companies, including Georgian olive oil. There is a demand for Georgian olives in the Chinese market - this is a very happy event. Negotiations with the Chinese have been going on for a long time and we will probably export the first products soon. This is the first country where Georgian olives will be exported. Serious orders have been received from this country and cooperation with them creates a serious prospect for the development of this field. Demand for Georgian olive oil is high, and export production resources are small at this stage. That is why the company additionally plans to cultivate plantations and increase production.

### **Conclusion**

In 2019, Georgia became the President Country of the International Olive Council. Within the framework of 60th anniversary meeting of the International Olive Council held in Madrid, Georgia was officially named as a President of the organization. The meeting was attended by the Georgian delegation, which included the Executive Director of the "Partnership Fund". Membership of Georgia of the International Olive Council and its election as the President Country of the Council means new opportunities for the country to develop this field, as in



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the direction to share the many years experience of the member countries of the Council, as to increase the dementions of olive production and export potential of the country, also to attract investment in this field. The “Partnership Fund” plans to actively support the expansion of Georgian olive production and export growth. The International Olive Council may take measures for to consult and cooperate with the United Nations and its specialized agencies, in particular the United Nations Conference on Trade and Development, other relevant intergovernmental organizations, and international and regional organizations. Such measures may include concluding cooperation agreements with financial institutions. Members undertake obligation to present and submit to the International Olive Council all kinds of statistic information, data and documentation which it needs to perform its functions under this Agreement, in particular any information that it will require for to create view about preparation of a balance sheet for olive oils, oils obtained from pressed olive and table olives and members’ national policies connected to olive products. Hopefully, Georgian products will be liked by other countries as well, export potential of Georgia will increase, and what is most important, Georgia will be marked on the world map as an olive-producing country. Georgian olives are especially attractive for export markets due to their high quality and low acidity.

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