

The Role of Russian Experts in the Delivery of New Vine Varieties to Turkestan and their Localization

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Abstract

This article covers issues such as the history of the introduction of new grape varieties in the Turkestan region, the specifics of new grape varieties and the role of Russian experts in their adaptation to natural climatic conditions.

Keywords: *Turkestan region, viticulture, new grape varieties, Ati-Vedro, Merlo, Saperani Muscat, White Muscat, N. I. Ivanov*

Russia, which has a favorable natural climate, rich flora and fauna, fertile soil and seasonal stability, as well as water resources and a thriving peasant population, has a basic basis for the development of traditional artificial irrigation, cotton, fruit, grain, viticulture and animal husbandry. the government has begun to mobilize leading experts in these areas. Control of existing forests and deserts in the country, as well as the distribution of seeds of new crops, new varieties of grapes, apples, pears and other similar fruit trees to the population resettled from the interior of the empire, began to take many measures to familiarize immigrants with local farming culture.

Russian agricultural specialists involved in Turkestan study the nature and climate of the region, improve soil composition and soil fertility, acclimatize new varieties of horticulture and grain, apply fertilizers in agriculture and horticulture, introduce modern technology into the agricultural sector. have done effective work on putting. Turkestan has become an "undiscovered reserve" for research and experimentation for various professionals from central Russia. On February 26, 1896, the Russian State Council and the Ministry of Agriculture approved a proposal to build the Turkestan Experimental Agricultural Station[14: 126].

In the autumn of 1897, the Turkestan Experimental Agricultural Station was opened on the Tashkent-Shimkent road, 12 km from Tashkent, to implement a special resolution on the implementation of the special decree for 1895-1897. Professor Garnik-Garnitsky was appointed the first director of this station, which had 66 acres of land, and later, from 1902 onwards, it was headed by R.R. Schroeder. The station operates in three main areas: a) field crop testing; b) dealing with fruit and viticulture issues; c) conducted laboratory observations, experiments on the study of the growing season of plants, etc. The experimental station also has important tasks, such as the introduction of new machinery and equipment in agriculture, tools, identification of the causes of diseases in crops, the creation of an important basis for their prevention and treatment, and experiments in horticulture and viticulture.

In addition, the experimental station will be equipped with a number of important equipment, including the introduction of new machinery and equipment in agriculture, identification of the causes of diseases in crops, the creation of important foundations for their prevention and treatment, and experiments in horticulture and viticulture. tasks are also set[14:127-129]. This

experimental station also played an important role in bringing new agricultural varieties to the region, including new varieties of grapes, adapting them to natural climatic conditions.

Initially, new, high-yielding and vinobop varieties of grapes were brought to Turkestan from Ukraine, Moldova and the Caucasus, but later new varieties of grapes were introduced to the country from France, Germany, Hungary, Bulgaria and even the Americas.

New grape varieties were first brought to the region in 1868 in Tashkent district, but later Samarkand became the main center of the region in the import of new grape varieties and the establishment of large grape plantations. Chuenko, one of the oldest gardeners, said that new varieties of grapes were first brought to the country from abroad by Colonel N.N.Raevsky and the Fetisovs, one of the leading experts in viticulture and winemaking. Later, Colonel Raevsky invited Chuenko, an experienced specialist, to work with him, bringing 3,000 new grape varieties to Tashkent and planting and cultivating them[10:94].

According to the sources, the propagation of new grape varieties on a planned basis by plantations was initiated by a Russian specialist N.I.Ivanov. He first established a vineyard in Tashkent district on 3 acres of land, and along with new varieties of grapes imported from the Crimea, local (mainly Charos) varieties began to be grown on this plantation, and gradually began to produce a lot of them.

Over time, the work of specialists from Russia in the field of agriculture and horticulture has been revived, and the test-industrial park of each of them has reached 25-30 acres. They cultivate both local and European varieties of grapes. For example, N.I.Ivanov, brothers Pervushins are famous in this regard, their test-industrial gardens were established in 1873. Later, in 1876, Prokhovsky, a leading expert in this field, founded the first viticulture and winemaking firm in the country. Dozens of local and new grape varieties have been grown in the vineyards of these specialists, and a rich harvest has begun to be obtained from them”[11:59-60; 14:74-75; 16:237-239; 5:234].

Agronomists and breeders, amateur farmers who came to Turkestan, in addition to adapting new grape varieties to the natural climatic conditions of the region, also carried out scientific research, such as comparing new grape varieties with local varieties, creating new varieties by mixing them with each other. The main purpose of this was to establish a continuous system of production of wine and other alcoholic beverages, one of the most lucrative branches of industry on the basis of viticulture, as well as other branches of horticulture, serving the interests of the Russian Empire.

Another leading specialist in viticulture in the country was A.Pullo. This expert compared varieties of grapes from European and Asian varieties such as Kamern, Lafit, Caberno-Savinon, Pedro-Chimmenes, Oporto, Sapperani, Alexandria Muscat, White, Red and Black Muscat with local Charos grapes and classified their unique characteristics. In particular, this expert noted that Charos, one of the local grape varieties, produces a stalk in one year and enters the harvest in the second year, while some of the new varieties imported from abroad are harvested in five years. He also noted that if the branches of Charos grow 7-8 arshins a year[11:58-59], the branches of new varieties imported from Europe will grow slowly, and draws attention to the peculiarities of the characteristics of local grape varieties compared to new grape varieties.

This means that N.I.Ivanov and I.I.Pervushin from Tashkent, as well as Samarkand gardeners A.L.Filatov and R.S.Prokhovsky not only brought new grape varieties to the country, but also adapted these new grape varieties to local conditions. also made a significant contribution to the study of the specific characteristics of local grape varieties.

In addition, experts in this field, such as N.I.Ivanov, I.I.Pervushin, A.L.Filatov and R.S.Prokhovskiy, introduced to the country new varieties of grapes, such as Ati-Vedro, Frank-pino, Merlo, Saperani Muscat, Yakrima. About 20 new varieties of grapes, such as Kristi, Yakrima-Dolche, Isabella, as well as black and red varieties of grapes Sotern, Risling, Madera, Gro-Risling, as well as about ten new varieties of grapes such as White Muscat, Yellow Alexandria, Shosla. have done a great service"[9:177-183; 7:142;13:322; 5:281].

In the early twentieth century in the districts of Samarkand region on 50 acres of land grapes were imported such as Black Ptiverdo, Frank-mens, Isabella, Caberno-Savinon, White Champagne, Riesling, Sotern, O-Porto, Modern-Malvazi, Lacrima -Christian, White Muscat. The varieties have been cultivated and harvested to the satisfaction of gardeners"[3:163;12:136; 5:326].

The new grape variety Matros, imported to the country from Azerbaijan, differs from other grape varieties by its cold tolerance, resistance to diseases found in grapes, as well as high yield and yield of wine. For example, this variety of grapes surpassed new varieties of grapes such as Merlo, Grenash, Murved, with features such as the ability to get 600-700 buckets (1 bucket on average 12-15 liters) of quality wine from each tenth of the land of the garden. Even grape varieties such as Pino-Farn from Southern Crimea, Caberno-Savinon from France, Caberno-Fran, Carmenera, Merlo, Verdo, Molebek, Pino-gray, Nino-Blanc, Aligata, argue with the Sailor in terms of yield, as well as the taste and color of wine did not receive"[9:177-183].

Not all amateur gardeners have always achieved the expected results in acclimatizing new varieties of grapes. In particular, some of the new grape varieties imported could not adapt to local conditions, their grape grains became smaller, their taste became sour, and their yield also decreased significantly. Therefore, these specialists had to carry out continuous scientific research on the adaptation of new grape varieties imported to the country to the natural climatic conditions.

According to the agro-technical rules developed by N.I.Ivanov, the vines should be opened from March 15 to April 1 and buried before November. The expert also spoke about the wages paid to workers working on his vineyard, noting that he spends an average of up to 15 rubles on workers who cultivate 1 tenth of the land. It is also worth noting that N.I.Ivanov was the first to introduce the use of a plow attached to 1 horse instead of manual labor between rows of grapes. This is because this method has increased the inter-row cultivation in the vineyards, i.e. increased labor efficiency. For many years, N.I.Ivanov has been engaged in this training, adapted new varieties of grapes to the natural climatic conditions of the region, distributed new varieties of grapes to other gardeners engaged in viticulture, and exchanged experiences in this regard[2:3-5; 15:297].

In the Turkestan region, in the harsh continental climate, summers are very hot and winters are dry and cold, with frequent changes in air flow, leading to recurrence of grape branch diseases (most common diseases: cholera, fungus, rust) or infertility. For example, in the Tashkent region of the country the weather was bad, and on April 13 and early May 1907 it snowed. By this time, Russian gardeners had uncovered buried vines on their plantations. For this reason, Russian gardeners had a much lower yield this year than local gardeners[2:3-5; 1:65; 8:61].

In the early twentieth century, as a result of mutual exchange of experience of local gardeners in the field of viticulture and horticultural specialists from Russia, gardeners of Turkestan region began to achieve higher yields than other regions of the empire. In particular, in the Don region of Russia from 1 bush to 2 pounds, from 1 desyatina area to 150-400 pounds, in Bessarabia (Moldova) 105-237 pounds, in Astrakhan 215 pounds, in Kakheta (Caucasus) 200-400 pounds. In 1893, the highest results were achieved in Yerevan, where up to 2,000 pounds of grapes were harvested from 1 tenth of the area. In this regard, the gardeners of Samarkand region have achieved better results than their

counterparts in the Don, Bessarabia and the Caucasus, yielding from a dozen vineyards to 2,251 pounds, 3 pounds of grapes from each of the 29-pound vines. Yields of more than 2,000 pounds per hectare have not been observed in new varieties of grapes imported from Europe, Crimea and the Caucasus, such as Satern, Saperavi (Kausta), Riesling, Grenage, Ptiverda, Muscat, Pino, Isabella. Gardeners of Samarkand district of Samarkand region, as a result of their hard work and successful fight against diseases such as fungi, oidium, anthracnose, myldium, which are found in grapes, managed to get 1500-2000 pounds of grapes from each tenth of the land[11:58-60].

In terms of grape growing and winemaking, Syrdarya and Fergana regions are second only to Samarkand region, and there were specific reasons for this. In particular, in the Fergana region alone, most of the arable land in agriculture is mainly cotton, which in turn has hampered the cultivation of other crops. This is because cotton, which was an important source of raw materials for the colonial government industry, was more profitable than other crops[1:67; 14:82; 4:270-276].

The development of the viticulture sector in Turkestan, as well as the introduction of new varieties of grapes in the country, led to high yields, which in turn played an important role in expanding exports of the region's products to the European part of Russia and abroad.

In the export of grapes and grape products from Turkestan, domestic animals such as camels, horses, and mules were first used as a means of transportation, but later, with the advent of the railway, the railway began to be used to transport these products.

In the first decade of the twentieth century, the volume of exports of fresh fruit from Turkestan to Russia increased. For example, in 1907, compared to 1906, the production of wet fruits increased by 136.31%, and the export of grapes increased by 241.03%. In contrast, dried fruit production decreased by 22%. If this figure is taken at a ratio of 100%, it can be seen that the weight of grapes increased from 30.64% to 48.77%, while wet fruits increased from 34.92% to 38.55%[14:82; 4:270-276].

From the above figures, it is known that the yield of grapes in the country is constantly increasing due to new varieties, and the demand for grapes and raisins in foreign trade of the country has increased. The number and variety of grape varieties in the region has tripled due to new varieties, and their number has exceeded 60 during the period under review.

The introduction of new grape varieties in the country and the planned cultivation of local varieties began to allow to get a rich harvest of grapes, which in turn played an important role in the production of wine on the basis of viticulture. The country also produces high-quality red wine, including three types of wines imported from Europe: Cabernet Savelon, Soperovki, Matros (Kara Shirvan), as well as local Kara Kishmish, Charos, Chillaki, Kara Hussaini[14:82; 9:177-183; 7:154].

Red and white wines made from new grape varieties such as Merlo, Grenaj, Murved are also highly rated. The yield and wine yield of these varieties are also high, with an average of 500 to 700 buckets of grape wine per 1 tenth of the land.

Wine drinks made in the country began to be exported. In particular, remittances through the Tashkent railway station in 1906 amounted to 8,071 pounds (85.73%), in 1907 - 97,490 pounds (134.77%), and two years later the growth rate was 114.96%. . From July 15 to September 15, there was a grape season in the country, with up to 300 pounds of grapes added to each wagon. In 1907, during the two-month season, 2 wagons were needed per day, for a total of 120 wagons, the sources said[6:17-18; 13:349].

The following general conclusions can be drawn from the analysis of the above data:

- The government of the Russian Empire, seeing the favorable natural climatic conditions of Turkestan, fertile soils and stability of the seasons, as well as water resources and the peasant population, the development of agriculture based on traditional artificial irrigation, cotton, fruit, grain, viticulture, animal husbandry. began to mobilize leading specialists to the country;
- The Turkestan Agricultural Experiment Station, established by the Russian government, and experienced specialists involved in the import of new varieties of agricultural crops, including new varieties of grapes, have also played an important role in adapting them to the natural climate.
- Ati-Vedro, Frank-Pino, Merlo, Saperani Muscat, Yakrima, Kristi, Yakrima-Dolche, Black Ptiverdo, Frank-mens, Isabella, Caberno-Savinon, White Champagne, Riesling, Sotern, More than thirty new varieties of Oporto, Modern-Malvazi, White Muscat and other similar grapes have been imported and adapted to the natural climatic conditions of the country;
- Experienced specialists in this field, such as N.I.Ivanov, I.I.Pervushin, A.L.Filatov and R.S.Prokhovsky, made a great contribution to the development of viticulture in the country, which played an important role in horticulture, especially in the cultivation of grapes. programs on agro-technical regulations have been developed and put into practice;
- The development of the viticulture sector in the country, high yields as a result of the introduction of new varieties of grapes, which in turn played an important role in expanding the export of grapes and grape products grown in the region.

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