

Geographical Aspects of Viticulture and Winemaking in the Bolnisi and Tetritskaro Municipalities

Lika Tsertsvadze^a

e-mail: lika.tsertsvadze008@ens.tsu.edu.ge

^a Department of Geography, Faculty of Exact and Natural Sciences, Ivane Javakhishvili Tbilisi State University, TSU II Building, 3 Chavchavadze Avenue, Tbilisi 0179, Georgia

Georgia is regarded as the cradle of wine, a fact substantiated by archaeological excavations. In the Kvemo Kartli region, grape seeds dating to the 7th-6th centuries BCE have been discovered. The tradition of producing wine in qvevri began approximately 8,000 years ago, and this practice has been preserved by Georgians to the present day. However, obtaining high-quality wine requires more than simply cultivating grapevines. Vines demand appropriate care and management, while their quality and productivity depend on geographical location, climate, relief, and soil composition.

In Georgia, grapevines do not thrive in all regions, as they prefer relatively dry, stony soils rich in various minerals. Such soils facilitate the development of a strong root system. The highest-quality yields are achieved when wine roots penetrate to depths of up to 12 meters. Generally, the older the vine, the higher the quality of the harvest it produces.

The Bolnisi microzone is located in the Kvemo Kartli region, within the Bolnisi Municipality, at an elevation of approximately 570 meters above sea level, in the valleys of the Mashavera and Khrami rivers. It territorially encompasses the town of Bolnisi and several surrounding villages, including Ratevani, Khatisopeli, Rachisubani, Savaneti, Talaveri, Kveshi, Akaurta, MuShevani, Samtsverisi, Kvemo Arkevani, Kvemo Bolnisi, Samtredo, Chapala, Zvareti, Tamarisi, and others.

Within the Bolnisi microzone, eight grape varieties are predominantly cultivated: Chinuri, Goruli Mtsvane, Tavkveri, Asuretuli Shavi, Shavkapito, Rkatsiteli, Saperavi, and Budeshuri Saperavi.

The grape varieties found in this region differ markedly from those widespread in Kakheti in terms of quality, productivity, and individual characteristics. Although the volume of grape production in the Bolnisi microzone is lower than in Kakheti, the region is distinguished by high-quality grapes and premium wines. This distinction is primarily determined by the composition of the soils on which the vineyards are established. The soils of Kvemo Kartli are characterized by considerable diversity and include gray forest soils, brown forest soils, chernozem, chestnut soils, and meadow alluvial soils, many of which exhibit high fertility. For example, meadow-brown soils are widespread in the village of Ratevani, along the right bank of the Mashavera River.

Vineyards in this area are mainly established in river valleys on relatively elevated terrain, where alluvial materials demonstrate particularly high fertility. Elevated locations are also essential to prevent excessive water intake by the vines; while abundant water may increase yield, it can negatively affect grape quality and diminish its organoleptic properties.