

“KAKHETI”

WINE OF APPELLATION OF ORIGIN

Geographical location. Kakheti is located in the southern-eastern part of Georgia, in the basin of the rivers Alazani and Iori and occupies 11,300 square kilometres of area. Its coordinates are: northern latitude of 41°-42°15' and eastern longitude of 45°-46°30'. To north-east, Kakheti is bordered by the main Ridge of Caucasus, Kartli Ridge from the west and Azerbaijan from the south-east.

Tsiv-Gombori Ridge divides Kakheti into two parts, Inner Kakheti and outer Kakheti.

Inner Kakheti is a gradual slope of the above-mentioned ridges transforming into Alazani Valley – the largest valley in Georgia. Alazani Valley is located on both sides of the river Alazani and its length is about 160 km, width varies from 5 to 40 km. Its altitude above sea level is 740 m in northern-western direction, which decreases in southern-western direction to 200 m, at the border with Azerbaijan. The relief of Alazani Valley is uneven and by the erosive action of mountain rivers flowing down the main Ridge of Caucasus the mountain slopes and their foots are quite dissection.

Outer Kakheti or Iori Upland is located between Samgori upland and Tsiv-Gombori Ridge and is directed towards east, where the main water artery of Kakhetian water flows – the river Iori. Diversified relief of Kakheti is blended with diversified climatic conditions.

Climate. There are three agro-climatic zones distinguished here: subtropical, warm and moderately warm. According to the indicator of climatic specificity, the region is divided into fifteen sub-regions.

Climatic conditions of Kakheti promote high-quality wine-making. Total annual amount of precipitations is 600-800 mm. The duration of the vegetation period is 210 days with the average temperature of 18,5°. Hail causing significant damage to some or other region of Kakheti is mostly expected in spring and autumn. The second half of spring may see long droughty periods. Winter is moderately cold and cloudy with little snow. Long frosts (18-20°), which damage the vines are rare. In general, the existence of vine culture in Kakheti is possible without burying and irrigation.

Soils. Vine-growing in Outer Kakheti is spread at the southern-western foot of Tziv-Gombori mountain and in the belt located between the left and partially the right terraces of the river Iori, located at 450-700 m above sea level and including the villages of Sagarejo Region Khashmi, Patardzeuli, Ninotsminda and Sagarejo itself, Gareji, Giorgitsminda, Tokhliuri, Manavi, Chailuri, Kakabeti, Verkhviani, Dabauri, territories of Iormughanlo, Kandaure and Shibliani, and partially the villages of Gurjaani Region Kachreti, Jimiti, Melaani, Arashenda, Chalaubani and villages of Signagi Region - Nukriani, Zemo and Kvemo Bodbe, territories of Magaro, villages of Gardabani Region - Samgori, Varketili, Martkopi, Gamarjveba and the territory of Sartichala.

Outer Kakheti has mainly brown-soil and brownish soils spread, with their varieties. Brown meadow soils with a number of varieties also occupy a significant place. Alluvial-proalluvial and dealluvial soils with their varieties are less spread.

The above-mentioned soils differ from one another by morphological signs and physical and chemical properties. Thickness of profile of brown, brownish, brown meadow soils varies within the limits of 50-120 cm, and that of the humus-containing layer varies within the limits of 30-60 cm. The soils are mainly characterized by clay and heavy loamy soils by texture. The content of humus in the active layer of these soils mainly varies between 2-4%, gradually decreasing in the lower layers. The soils contain carbonates in small and average quantities of 2,5-25% increasing in the upper layers. The reaction of the soil area is average and weak alkaline and pH indicator is mainly within the limits of 7,3-8,2

Alluvial-proalluvial and dealluvial soils in the vine-growing zone of Outer Kakheti are spread on relatively less areas, mostly along the gorges and lower belt of the mountain slopes. Thickness of the profile of these soils exceed 1 meter, and that of active humus-containing layer is 30-50 cm. The soils are mainly characterized by loamy and heavy loamy texture, by skeletal and

stony structure here and there. The average of carbonates is alkaline and pH indicator is 7,5-8,3. The content of humus in these soils varies mainly within the limits of 1,5-2,55.

The zone of Inner Kakheti includes the territories of Gurjaani, Telavi, Akhmeta, Kvareli and partially the territories of Signagi, Tsitelskaro and Lagodekhi Regions, spread on the right and left sides of the river Alazani and representing its second terrace and the foots of the northern-eastern and northern-western slopes of Tsiv-Gombori mountains. The zone is located between the foots of the southern slopes of Caucasioni Mountains and foots of the northern-eastern and northern-western slopes of Tsiv-Gombori mountains, at 350-750 m above sea level.

On the right side of the Alazani, in Inner Kakheti, there are brown, brown meadow, Chernozem, brownish, alluvial-proalluvial and dealluvial soils with their varieties spread.

Thickness of profile of brown, Chernozem and brownish soils varies within the limits of 60-120 cm, and that of the humus-containing active layer varies within the limits of 30-60 cm. The soils are mainly characterized by clay and heavy loamy texture. They are characterized by skeletal and stony structure here and there, with average and little content of carbonates. The reaction of the soil area is average and weak alkaline and pH indicator is mainly within the limits of 7,2-8,2. The content of humus in the active soil layer is mainly 2,0-4,0% gradually decreasing in the lower layers.

Alluvial-proalluvial and dealluvial soils are represented on the both sides of the river Alazani. Thickness of the profile of these soils exceeds 1-1,5 meters, and that of the humus-containing active layer is within the limits of 40-60 cm. They are mainly characterized by loamy and heavy loamy texture, with light loamy and sandy textures in some sections. The content of humus in the active soil layer is mainly 1,5-2,5% gradually decreasing in the lower layers. Alluvial-proalluvial and dealluvial soils spread on the right side of the Alazani contain carbonates mainly on average and little amounts (4,5-25,0%), and the same soils spread on the left side of the Alazani do not contain carbonates, or contain them in insignificant amounts (0,5-2%). The reaction of the soil area pH for the soils spread on the right bank of the Alazani is 7,3-8,2, and for the soils on the left bank of the Alazani is 6,2-7,0.

Agro-technological regulations

The following agro-technological regulations should be observed by considering the soil and climatic conditions.

Species of "Rkatsiteli"

Growing area: Up to 750 m above sea level.

Plot of planting: 2,0 x 1,5 m; 2,5 x 1,5 m;

Height of stem: 80-100 cm

Form of pruning: Free and Georgian two-sided trellis.

Norm of loading per 1 m²: 8-10 buds.

Harvest: 9-10 tons per hectare.

Species of "Kakhuri Mtsvane"

Growing area: Up to 750 m above sea level.

Plot of planting: 2,0 x 1,5 m; 2,5 x 1,5 m;

Height of stem: 80-90 cm

Form of pruning: Free and Georgian two-sided trellis.

Norm of loading per 1 m²: 8-10 buds.

Harvest: 6-7 tons per hectare.

Soil cultivation

Autumn and spring plough of soil. Minimal soil cultivation. Moisture-preservation measures- preserving the soil surface in loose state (cultivation, milling, mulching).

Fertilization

Application of organic-mineral fertilizers under cartographic agricultural regulations and ecological resources of the given location.

Phyto-sanitary regulations

Principal diseases: Mildew, powdery mildew, rots.

Pests: Ticks, western grape worm, mealybug.

Pest and disease control measures: Using proper contact and systematic preparations registered in Georgia.

Economic-technological characterization of the species

“Rkatsiteli” -Wine species of white vine. It is distinguished for high economic-technological properties, good resistance in various conditions and high dignity of production. It is of average or later than average ripening period; a high-yielding species (average weight of the bunch is up to 160-250 gr.). The average harvest is 9-10 tons per hectare.

The sugar content in the ripe grape is 220-240 gr/dm³, with the permanent acidity of 5-6 gr/dm³.

“Kakhuri Mtsvane” - Georgian white vine species giving high-quality product. It completely ripens at the end of September.

Its bunch is of average size with the average weight of 160-175 gr. Ripe bunch is of green-yellowish color and has a very pleasant species-specific aroma. The content of sugar in the ripe grape is 200-220 gr/dm³, with 6-7 gr/dm³ of acidity. Average harvest to produce high-quality wine is 7-8 tons per hectare.

Wine “KAKHETI” is dry white wine of geographical appellation. It is produced with the grape of species “Rkatsiteli” and “Mtsvane” with fully stopped must.

Wine “Kakheti” is characterized with amber color, fruit aroma, pleasant astringency, velvety and harmonicity.

Chemical characteristics of the wine “Kakheti” should correspond to the following indicators:

Volumetric spirit-content, % - 10,5-13,5

Mass concentration of sugars of no more than 4 gr/dm³

Titrated acidity - 5-6 gr/dm³

Volatile acidity of no more than 1,2 gr/dm³

Mass concentration of finished extract of no less than 18 gr/dm³

The rest norms should correspond to the legislative acts of Georgia and the EU Directive No. 1493/1999 of May 17, 1999.

Area of specific zones

The area of the specific zone of "Kakheti" is approximately 3100 km².

The local ecological environment and the universality of the local indigenous species make for the originality and high quality of "Kakheti" wines.

