

“VAZISUBANI”

WINE OF APPELLATION OF ORIGIN

Geographical location. The specific zone of Vazisubani vine-growing area is located in the middle stream of the river Alazani, with the coordinates of northern latitude of $41^{\circ}49'$ and eastern longitude of $45^{\circ}43'$, on the areas for vineyards on one of the aprons of Tsiv-Gombori ridge with the inclination of $5-6^{\circ}$ eastwards. It is bordered by high winding of Tsiv-Gombori Ridge from the west and north-west, and by the areas with vineyards of Mukuzani from the east and north-east. It is located at 550 m above sea level and includes the villages of Vazisubani, Kalauri, Shashiani and Vachnadziani.

Climate. The climate is moderately humid with hot summer and moderately cold winter, with double fall of precipitations during the year. The annual duration of sunshine is over 2180 hours, and reaches 1610 hours during the vegetation period. Direct solar radiation on horizontal surface is 70-75 kcal/cm² per annum, dissipated radiation is 50-54 kcal/cm², total solar radiation per annum is 120-130 kcal/cm². The ratio of the actual amount of sunshine to its possible amount in summer months and September is generally very high and equals to 68%.

The number of clear days in the grape ripening period (August-September), according to the cloudiness of general and lower tiers is 17-18 on average.

Average annual air temperature is $11,9^{\circ}$. Average temperature of the coldest month (January) is $+0,5^{\circ}$ and the temperatures of the warmest months of July and August almost equal and amount to $23,1^{\circ}$ and $22,9^{\circ}$. Average of annual absolute minimums of air temperature is -10° , absolute minimum is -23° . Average of annual absolute maximums of air temperature is 34° , and absolute maximum is 38° .

Daily amplitude of air temperature is the highest in summer months (June, July, August) and is 9° and more on average. This indicator is the lowest (4,8-5,5°) in winter.

A stable transition over the average daily temperature of 10° (the beginning of active vegetation of vine) takes place on 8.IV, and the fall below this point takes place in autumn (30.X). The period of daily temperatures of more than 10° lasts for 204 days with the total of active temperatures of 3730°.

Sum of active heat (4000°) may accumulate once in every 10 years (10%). According to the total heat (3800°), good-quality bulk wine may be produced in 50% of years.

The first night frosts in autumn start on 15.XI on average. Such frosts may start on October the 20th once in every 10 years. However, by this time, the grape vintage is over.

The last night frosts in spring end on 1.IV on average. The late frosts may last until April the 17-th once in every 10 years.

The annual sum of atmospheric precipitations is 884 mm, with 662 mm in the vegetation period. The greatest amount of precipitations (150 mm) falls in May and June (130 mm), when grape ripens, and is quite high in September equalling to 75 mm.

Average annual relative air humidity is 71%. In the vegetation period, this indicator is no more than 68%.

The annual number of days with hail is 2,2 on average. It most frequently hails in May (0,7 days) and June (0,5 days). In the years with enormous amount of hail, the number of days with hail may reach 5.

Average annual temperature of the soil surface is 14°. In the warmest months (July, August) the average temperature of the soil surface is 28°, and in the coldest month (January) it is -1°.

Winds of western (32%) and southern-western (23%) directions prevail here. Average annual wind speed is 1,4 m/sec.

Following the analysis of the mentioned data, the specific zone belongs to the III-category region of wind negative activity.

Soils. The soils here are represented by the varieties of brown forest, brown meadow and alluvial types, which differ from one another with the thickness of profile, degree of skeletal-structure and texture. Brown forest soils are spread in the upper belt of northern-eastern slopes of Tsiv-Gombori mountains; brown meadow soils are spread in the lower belt of these slopes, adjacent to the second terrace of the river Alazani, along the irrigation channel of the lower Alazani. Alluvial soils are spread on the second terrace of the river Alazani up to the first terrace of the Alazani, below the irrigation channel of lower Alazani.

There are three varieties of brown forest soils, two varieties of brown meadow (old alluvial) soils and four varieties of alluvial-proalluvial soils distinguished in the specific zone:

- Brown forest of great thickness, weakly skeletal, average and heavy loamy soils;
- Brown forest of average thickness, weakly skeletal, average and heavy loamy soils;
- Brown forest of average thickness, with little humus, averagely skeletal and weakly stony, heavy loamy soils;
- Brown meadow (old alluvial) of great thickness, clay soils;
- Brown meadow (old alluvial) of great thickness, weakly skeletal, clay soils;
- Alluvial-calcareous of great thickness, heavy loamy and clay soils;
- Alluvial-calcareous of great thickness, weakly skeletal and loamy soils;
- Alluvial-proalluvial, calcareous of great thickness, weakly skeletal, clay and heavy loamy soils;
- Alluvial-proalluvial, calcareous of great thickness, skeletal, light loamy and sandy soils.

The first three varieties of the above-listed types of soils are spread in the upper belt, on northern-eastern slopes of Tsiv-Gombori mountains and on slightly inclined slopes. The fourth and fifth varieties are spread on foots of the mentioned slopes, in the lower belt and on slightly inclined plain relief, adjacent to the second terrace of Alakani. The soil varieties of the sixth and seventh groups are spread on the second terrace of the Alazani plain bordering Tsiv-Gombori mountains from north-east and south-east.

The first three varieties of soils spread in the upper belt are characterized by average and great thickness of profile of 70-100 cm, and with the humus layer of 30-60 cm thick. They are characterized by heavy loamy texture. The first type of soil is characterized by weakly skeletal structure, and the soils of second and third groups are characterized by average skeletal structure. The first three varieties of soils in the lower layers are characterized by dark brown and brown colour, and by straw-whitish tint in the lower layers. The soils of the fourth and fifth group spread in the lower belt of the mentioned slopes are characterized by great thickness of profile (100-150 cm), with 50-60-cm-thick humus layer. According to texture, they mainly belong to loamy and clay soils, and the soils of the ninth variety is the loamy and sandy soils. The soils of the 7-th and 8-th varieties are weakly skeletal, and those of the 9-th variety are of average skeletal structure.

The content of humus in all types of soils is mainly little of 0,5-3,0%. The content of hydrolysis nitrogen is also low for the most part not exceeding 5 mg. in 100 gr. of soil. Soluble phosphorus and exchange potassium also have little proportions, except for some cases. The average amount of calcium carbonates is 8-20%. The soils of the third variety are exception in this respect with the content of calcium carbonates of up to 42-44%. The reaction of soil solution (pH) is mainly average alkaline and pH indicator varies within the limits of 7,5-8,0. The sum of the absorbed bases (Ca+Mg) is average equalling to 15-30 milliequivalents in 100 gr. of soil. The soils of the first and second varieties are exceptions with the same indicator constituting 33-47 milliequivalents in 100 gr. of soil.

Agro-technological regulations

In order to produce the bulk wine of "Vazisubani", 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 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. Moisture-preservation measures—preserving the soil surface in loose state (cultivation, milling, mulching). Ending the vegetation irrigation one month prior to vintage.

Fertilization

Application of organic-mineral fertilizers under cartographic agricultural regulations.

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" and "Kakhuri Mtsvane"

“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, high-yielding (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 bunches are 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 wines is 7-8 tons per hectare.

Wine “Vazisubani” is premium-quality controlled dry white wine of geographical appellation. It is produced with the grape of species “Rkatsiteli” (85%) and “Kakhuri Mtsvane” (15%) with fully stopped must.

Wine “Vazisubani” is characterized with light straw color, harmonious taste, buoyant well-developed race and flower tones.

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

Volumetric spirit-content, % - 10,5-12,5

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

Titrated acidity – 5,5-7,5 gr/dm³

Volatile acidity of no more than 1,0 gr/dm³

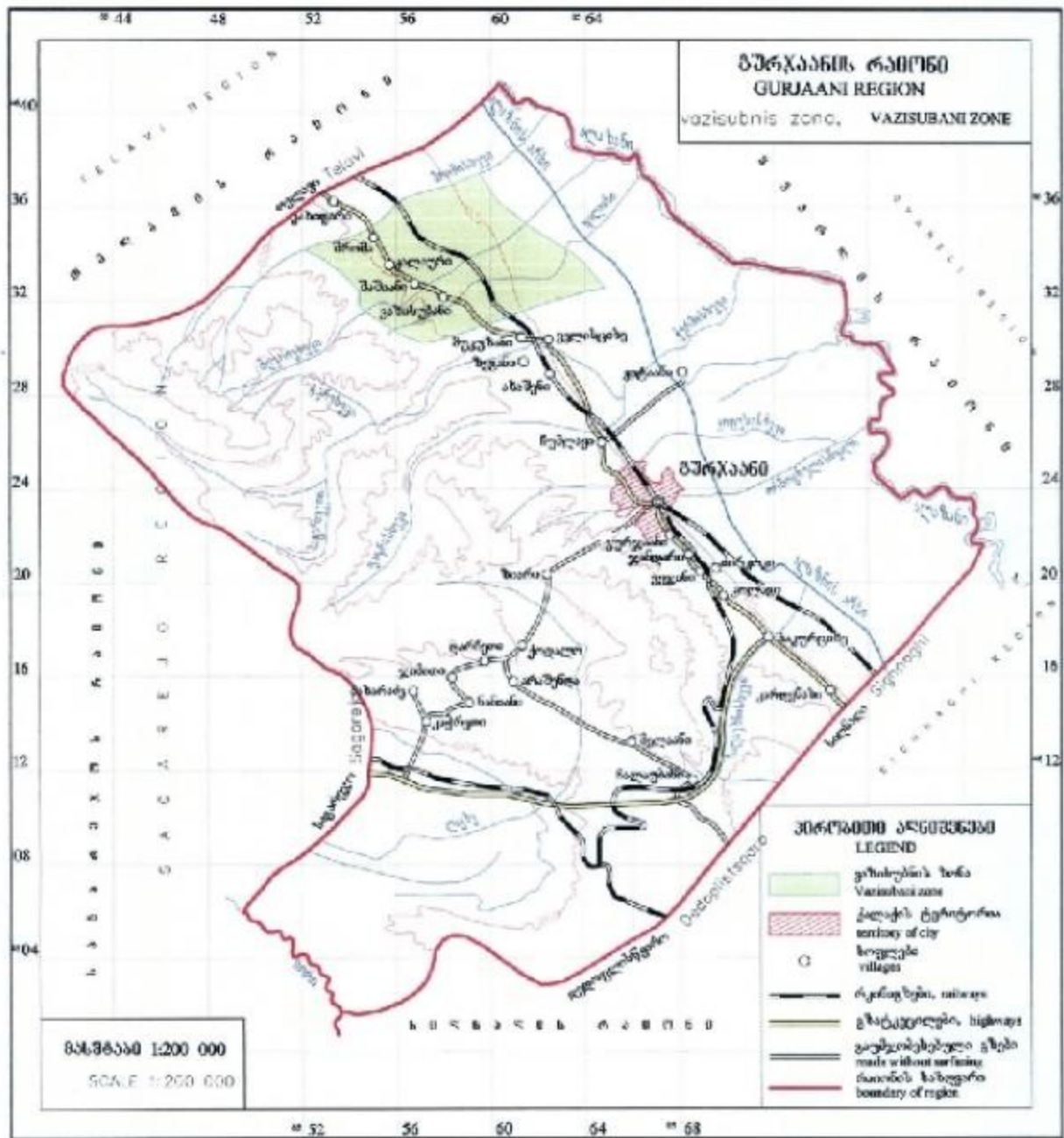
Mass concentration of finished extract of no less than 16 gr/dm³

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 “Vazisubani” is approximately 62 km².

Moderately humid climate, humuc-calcareous soils, taste indicators of “Rkatsiteli” and “Kakhuri Mtsvane” and the traditional wine-making technology make for the harmonicity and buoyancy of the wine “Vazisubani”



Source :
 National intellectual Property Center of Georgia
<http://www.sakpatenti.org.ge>