

“SVIRI”

WINE OF APPELLATION OF ORIGIN

Geographical location. The specific zone is located on the left shoreline of the river Kvirila, the tributary of the river Rioni, with the coordinates of North latitude $42^{\circ}07'$ and East longitude and eastern longitude $42^{\circ}55'$, on northern inclinations of the southern foothills of Middle Imereti. It includes the following villages: Pirveli Sviri, Meore Sviri, and administrative borders of Rodinauli. Absolute altitude above sea level is 220 meters.

Climate. The mentioned specific zone belongs to the zone of sea humid subtropical climate and is characterized by mild, warm winter and hot summer.

The annual duration of sunshine is 2100 hours, and 1550 hours during the vegetation period. Average annual air temperature is quite high and is $14,0^{\circ}$. The temperature of the warmest month (August) is $24,2^{\circ}$, and that of the coldest month (January) is $+4,4^{\circ}$.

A stable transition of the average daily air temperature above 10° takes place at the end of March, and the fall below 10° takes place in the third decade of November. Thus, the duration of the period with the temperature above 10° is 230-235 days. Total of active temperatures is over 4300° on average.

Annual sum of atmospheric precipitations is 1500 mm, and 675 mm during the vegetation period. Average monthly amount of precipitations is the greatest in winter (175-180 mm) and is the least (71 mm) in August.

The amount of precipitations in July and August (76-71 mm) almost equals to that of their evaporation. This means that in some years the vineyards need irrigation.

Hail is expected during the whole year, however, in insignificant amount (0,7-1,0 days). It most frequently hails in May (0,3 days).

Winds of western (36%) and eastern (35%) directions mainly prevail. They are partially substituted by southern-eastern winds (12%). Average annual wind speed is 2,2 m/sec. According to seasons, the winds are strongest in spring. The number of days with strong winds is 34.

According to the negative influence of winds, the specific zone belongs to the second group of wind activity and therefore, the main windbreaks should be planted directed from the north to south and distanced by 250 meters. The number of rows in the main windbreaks should be 4, and that in the additional windbreaks should be 2.

In autumn, the first night frosts start after the fall of the vine leaves (25.XI), at the end of November.

The average of annual absolute minimums of air temperature once in every 10 years is expected to fall to -13° . The absolute minimum of air temperature may fall to -19 , -20° what is a very rare event.

Soils. The territory to produce the wine "Sviri" is located in Western Georgia and namely, in the extreme eastern parts of Kolkheti Lowland and border directly the foot of northern and southern slopes of the Caucasioni foothills. Most of the territory is of a plain relief, and its southern-eastern part, which is represented in the hilly zone of the foothill, is a slightly inclined slopes and small terraces and plains directed towards north-west and west.

In the lower belt, there is a variety of alluvial and dealluvial soils spread. In the middle layer, there is a variety of bleached soils.

The above-mentioned soils differ from one another by the thickness of profiles and humus-containing layers and degree of skeletal texture.

Among the above-mentioned soils, alluvial soils are spread on the first and second terraces of the river Kvirila. The thickness of profile of these soils exceeds 1 meter, and the thickness of active humus-containing layer varies within 30-40 cm. According to texture, the second terrace presents relatively old alluvial soils, which are mainly heavy loamy and clay soils, and relatively new alluvial soils are average and light loamy soils. Some of the sections are characteristic with skeletal texture.

Dealluvial soils are represented as short sections on foots of the lower slopes of the hilly zone of the foothills. Thickness of profile of these soils exceeds 1 meter, and that of a humus-containing active layer varies within the limits of 40-50 cm. The soils are characterized by clay texture.

Content of humus in the active layer of alluvial and dealluvial soils is mainly 2,5-1,5%, gradually decreasing in lower layers. Hydrolysis nitrogen is for the most part contained in small quantities mainly amounting to 2,5 mg. in 100 gr. of soil. The content of phosphorus is also low not exceeding 8,0 mg. in 100 gr. of soil. The content of exchange potassium varies within great limits and mainly amounts to 5,0-4,0 mg. in 100 gr. of soil. The reaction of soil area is mainly neutral and weak alkaline, and in some cases, it is weak acid reaction. The indicator pH varies between 5,8-7,6. Some sections of soils contain carbonates in small quantities. Bleached soils are spread in the middle belt of the zone with the thickness of profile of 70-100 cm, and with the thickness of active humus-containing layer of 25-35 cm. The soils are of heavy loamy and clay texture with weak acid reaction. The content of humus in the active layer is 2,5-1,5% gradually decreasing in the lower layers. The content of main nutrient elements (NPK) is mostly little.

Humic-calcareous and brown soils are spread in the upper part of the micro-zone, on the forms of hilly relief. The thickness of the profile of these soils is 60-100 cm, and that of the soil with active humus layer is 30-40 cm. The soils are characterized by heavy loamy and clay texture. The content of humus in the active layer is within the limits of 2-3% gradually decreasing in the lower layers. According to the content of the main nutrient elements (NPK), these soils are mostly characterized by low indicators, reaching average values in some cases only. The reaction of soil area pH in brown soils is mostly neutral or inclined to weak acid one and pH indicator equals to 5,6-7,0. In humic-calcareous soils it is average or weak alkaline with pH of 7,3-8,0. The content

of carbonate in humic-calcareous soils is mainly 2,5-16,0% reaching even greater values in some cases.

Agro-technological regulations

In order to produce the bulk wine of “Sviri”, the following agro-technological regulations should be observed by considering the soil and climatic conditions.

Species of “Tsolikouri”:

Growing area: Up to 170-270 m above sea level.

Plot of planting: 2,0 x 1,5 m; 2,5x 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: 6-7 tons per hectare.

Species of “Tsitska”:

Growing area: Up to 170-270 m above sea level.

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

Height of stem: 80-90 cm

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

Norm of loading per 1 m²: 7-8 buds.

Harvest: 6 tons per hectare.

Species of “Krakhuna”:

Growing area: Up to 170-270 m above sea level.

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

Height of stem: 80-90 cm

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

Norm of loading per 1 m²: 7-8 buds.

Harvest: 6 tons per hectare.

Soil cultivation

Minimal and zero soil cultivation, a grass and lawn system, soil mulching.

Fertilization

Application of organic-mineral fertilizers under cartographic agricultural regulations.

Phyto-sanitary regulation

Principal diseases: Mildew, powdery mildew.

Pests: Ticks, mealybug, variegated grape moth.

Control measures: Applying contact and systematic preparations registered in Georgia.

Economic-technological characterization of the species "Tsolikouri", "Tsitska" and "Krakhuna"

"Tsolikouri" – Indigenous wine species of white vine widely spread in western Georgia. It is of late ripening period, with stronger than average grow. Average harvest in the principal regions of growing amounts to 6-7 tons per hectare. The average weight of bunch is 150-160 gr.

The sugar content in ripe grape is 200-250 gr/dm³, with the permanent acidity of 7,5-9,5 gr/dm³. Local wines and those of European type made with it are characterized by great body, harmonious taste, buoyancy and taste indicators.

"Tsitska" – Georgian white wine species. It is included in the group of indigenous vine species of Imereti. It is of late ripening period, of lower than average grow. Conventional harvest is 5-6 tons per hectare. The average weight of the bunch is 130-150 gr.

Sugar content of the ripe grape reaches 180 gr/dm³, with the acidity of 6,9-10,5 gr/dm³.

This species produces high-quality production and is successfully used to make sparkling wines.

“Krakhuna” – Georgian white wine species. It is included in the group of indigenous vines of Imereti. It is of late ripening period, with average grow. Conventional harvest is up to 6 tons per hectare. The average weight of the bunch is 140-160 gr.

Sugar content of the ripe grape reaches 210-230 gr/dm³, with the acidity of 7,5-8,5 gr/dm³.

This species produces high-quality production and is successfully used to make sparkling wines.

Wine “Sviri” is supreme-quality controlled dry white wine of geographical appellation. It is produced with the grape of species “Tsolikouri” and “Tsitska” (species “Krakhuna” is also recommended) with stopped must on fermented rape (the proportion of rape constitutes 5-6% of must).

Wine “Sviri” is characterized with dark straw-yellowish tint, fruit tones, developed race, extractability and harmonicity.

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

Volumetric spirit-content, % - 11,0-12,5

Mass concentration of sugars no more than 4 gr/dm³

Titrated acidity – 5,5-7,0 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 "Sviri" is approximately 27 km².

Location, soils and climatic conditions, aroma of the vine species "Tsolikouri" and the peculiarity of making the wine allows producing high-quality controlled dry white wine "Sviri" of geographical appellation.

