

## GURJAANI

**NUMBER OF REGISTRATION:** 5

**DATE OF REGISTRATION:** 30/08/2005

**APPELLATION OF ORIGIN:** GURJAANI

**GOOD FOR WHICH REGISTRATION IS REQUIRED:** Wine

**NAME AND ADDRESS OF APPLICANT:** LEPL - National Wine Agency; Marshal Gelovani Av. 6, 0159, Georgia, Tbilisi

**1. NAME:** "GURJAANI"

**2. ADDITIONAL SIGNS:**

**3. TYPE, COLOR AND MAIN REQUIREMENTS:**

"Gurjaani" is white sec (dry) wine, which shall satisfy the following requirements:

- Color – light straw;
- Aroma and taste – perfect, delicate, soft, harmonic, cheerful, refined, pleasantly sweet with meadow flowers tones, having aroma characterizing the location, fruit tones are developed with aging;
- Volumetric spirit content – no less than 11 %;
- Concentration of finished extract mass – no less than 16 g/l;
- Sugar content – no more than 4 g/l;
- Titrated/ Volatile acidity – no less than 5 g/l;
- Other characteristics shall meet requirements provided by the legislation of Georgia.

**4. SPECIFIC ZONE AVAILABLE AREAS**

The micro-zone "Gurjaani" is located in the middle stream and right bank of the River Alazani, on the coordinates – 41°45' of Northern longitude and 45°48' of Eastern latitude.

The micro-zone covers forest slopes of the Tsiv-Gombori Range until Alazani channel. The North-Eastern part of the micro-zone is expanded till Akuriskhevi, and the South-Western – till Sighnaghi municipality administrative border.

"Gurjaani" includes the villages: Kardenakhi, Bakurtsikhe, Kolagi, Vejini, Dzirkoki, Chandari, village Gurjaani, and city Gurjaani suburban zone, Kotekhi, Chumlaki, Akhasheni, Zegaani, Velistsikhe, Mukuzani, Vazisubani, Shashiani, Kalauri, Vachnadziani and Kakhpari.

## **5. VINE VARIETIES**

Wine "Gurjaani" shall be prepared from the grapes of Rkatsiteli, the vintage takes place in the micro-zone Gurjaani. It is permitted to use about 15% of Kakhuri Mtsvane.

## **6. VINEYARD CULTIVATION, SHAPE OF PRUNING AND CARE:**

- The micro-zone Gurjaani vineyards for wine Gurjaani is situated on 350-700 m above sea level.
- Distance between the rows in the vineyards – 1-3 m;
- Distance between the vines in the row – 0.8-1.5 m;
- Height of stem – 60-90 cm;
- Shape of pruning – one-sided or Georgian two-sided or free;

Vine cultivation, shape and pruning, pests and diseases control, and soil treatment, fertilization, and other operations, shall be provided according to agro-technical activities selected by wine-makers.

## **7. GRAPE MATURITY, VINTAGE, TRANSPORTATION:**

- "Gurjaani" shall be produced only with ripe grapes. Sugar content shall be no less than 19%, at the vintage;
- Grapes transportation is permitted only with wooden or plastic boxes, with bodyworks made of stainless steel or painted with special colour;
- Usage of polyethylene packages and/or bags is not allowed;
- The grapes shall be protected from dirtying at the transportation.

## **8. VINTAGE AND WINE PRODUCTION:**

Vintage on 1 ha vineyard shall be:

- 10 tons for Rkatsiteli;
- 8 tons for Kakhuri Mtsvane.

Wine production shall be no more than:

- 650 liters – from 1 ton grapes;
- 6500 liters – from 1 ha vineyard for Rkatsiteli;
- 5200 liters – from 1 ha vineyard for Kakhuri Mtsvane.

## **9. GRAPE PROCESSING, WINEMAKING AND BOTTLING**

Grapes Rkatsiteli and Kakhuri Mtsvane for producing wine Gurjaani shall be only from the vineyards cultivated in the micro-zone Gurjaani.

Grapes processing and winemaking shall be provided exclusively inside of Kakheti, bottling is permitted outside Kakheti, but only on the territory of Georgia.

At the same time, the grapes can be got from the Gurjaani micro-zone and the wine can be withdrawn from Kakheti viticulture zone only under strict accounting and control.

Gurjaani is made by complete alcoholic fermentation of gravity grape juice.

In the production of wine Gurjaani it is permissible to use only the operations, materials and substances provided by the legislation of Georgia.

Gurjaani shall be represented on consumer market only packed in the consumer vessels.

## **10. LINK BETWEEN EXCLUSIVE QUALITY, REPUTATION AND GEOGRAPHICAL AREA**

**CLIMATE** – The formation of weather in the micro-zone is caused by atmospheric processes developed in subtropical and moderate areas and moved from the East and West longitudes. The climate in the micro-zone is moderately humid, with hot summer and mild winter. Annual duration of sunshine ranges within 2150-2200 hours. Sunshine continues 1550-1600 hours during the vegetation period.

Direct annual radiation on the horizontal surface is  $71 \text{ kcal/cm}^2$ , and scattered –  $49 \text{ kcal/cm}^2$ , but in the vegetation period –  $35 \text{ kcal/cm}^2$ . Sum of annual radiation is  $120 \text{ kcal/cm}^2$ , and –  $90 \text{ kcal/cm}^2$  in the warm period.

The average annual air temperature of the micro-zone is quite high –  $+12.5^\circ\text{C}$ , the warmest months are July and August, average temperature is equal to  $+23.60^\circ\text{C}$ , and of the coldest month (January) is  $+0,90^\circ\text{C}$ .

Sustainable transition of air temperature above  $+10^\circ\text{C}$  takes place from 5.IV, and it's falling – from 3.XI. Vegetation period duration is 211 days, and sum of active temperatures is  $+3930^\circ\text{C}$ .

In the micro-zone Gurjaani annual number of sunny days (0-2 points) is 51– of general, and 132 – of low cloudy days. During the vegetation period, cloudy days index correspondingly is equal to 36 and 79.

Annual quantity of general- (8-10 points), and lower cloudy days is correspondingly equal to 113 and 59. During the vegetation period, this indicator is equal to 54 and 26.

First frosts in the micro-zone begin in the third decade of November (25.XI), and stop in average from 24.III.

Annual sum of atmospheric precipitations is 804 mm, and 578 mm during the vegetation period, in the micro-zone Gurjaani. Maximum of precipitations (124 mm) take place in May, and minimum (32 mm) – In January.

Snowing takes place in the end of December, and melting – in mid-March. During this period, snow-cover of 6-7 cm exists during 25 days.

Relative air humidity is approximately 72%. The most humid (80%) month is November, and less (64%) – August.

Annual average value of hailing days is 1,7. May and June are the most hailing months (0,6-0,4) of year.

Depending on the analysis of the alluvial-carbonated soil temperatures, in the 5-50 cm depth of layer, the average temperature above 10°C is in first decade of April, and the same bellow (50-100 cm) is in mid-April.

Activation of root system starts from mid-May, when the temperature is above 15°C, in the 10-120 cm layer of soil. From mid-June to the end of September, over three months, the temperature is above 20°C, in 5 to 70 cm depth layer.

In the micro-zone, the South-Western – (33%) and Western (18%) winds are prevailing. Rarely, they are replaced by Eastern winds (12%). Average wind speed is 1,7 m/s, with the highest rate of wind (1,9 m/s) in March, and the lowest (1.5 m/s) – in December.

Rkatsiteli buds opening begins from mid-April, and blossoming – in the end of May, grapes ripening – in the second half of August. Grape tech ripening – in the end of September.

**SOIL** – On the basis of the existing research, there are distinguished 4 types of brown, 4 – meadow-brown, 5 alluvial and 2 deluvial soils:

1. Dark brown, very thick, clay;
2. Dark brown, very thick, leptosol, clay;
3. Rrendzino-brown, very thick, clay;
4. Bown, very thick, leptosol, loam;
5. Meadow-brown, very thick, clay;
6. Meadow-brown, very thick, loam;
7. Meadow-brown, very thick, slightly leptosol, loam;
8. Meadow-brown, very thick - 110-120 cm, underground water 140-150 cm, heavy clay;
9. Aalluvial carbonated, very thick, clay soil;
10. Alluvial carbonated, very thick, loam;
11. Alluvial carbonated, slightly leptosol, loam;
12. Alluvial carbonated, very thick, moderate leptosol, stony loam;
13. Alluvial carbonated, very thick, periodically wetland, underground water in 140-150 cm, clay;
14. Deluvial carbonated, very thick, loam;
15. Deluvial carbonated, very thick, slightly leptosol, loam, stony loam.

Soils of the first three varieties are found in upper zone in the North-Eastern slopes of Tsvi-Gombori Range and on slopes, the 4<sup>th</sup> variety of soil – in middle zone on slightly inclined slopes and flat land areas.

The 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> – on mentioned above foothills bordering Alazani Gorge and are disposed on flat

land. Said soils are slightly inclined towards North-Eastern and South-Western directions.

The 9<sup>th</sup> and 13<sup>th</sup> varieties of soils are represented in upper part of Alazani Gorge bordering Tsiv-Gombori Range North-Eastern foothills along Alazani irrigation channel.

The 14<sup>th</sup> and 15<sup>th</sup> varieties of soils, deluvial, mostly are disposed on the foothills on slightly inclined trails.

First three varieties of soils disposed on the highest zone are characterized with deep thickness of profile – 70-100 cm, and active humus layer – 45-60 cm is clay, wherefrom second variety is leptosol.

All three varieties of soils contain carbonates bellow, especially 3<sup>rd</sup> one. Mentioned soils are developed on licious-like clay and limy layers. They are dark brown on upper – humus layer, and changed from beige to white – downwards.

The 4<sup>th</sup> variety of soil disposed on middle zone is characterized with moderate and slight leptosol, deep thickness of profile (80-120 cm). Active humus layer varies within 50-60 cm. Soil mechanical content is clay, color is brown in active layer, light brown – deeply, and passes to beige downwards, soil is carbonated in whole profile.

The 5<sup>th</sup> and 8<sup>th</sup> – disposed on low zone, have brown and dark brown to black color, deep thickness of profile (100-150 cm), and deep humus layer (60-70 cm); it is clay with mechanical content.

The 6<sup>th</sup> and 7<sup>th</sup> – loamy, the 7<sup>th</sup> is characterized with slight leptosol, the 8<sup>th</sup> – with more humidity passing to wetland from 100-120 cm depth, and in 140-150 cm exists underground water.

The 9<sup>th</sup> and 13<sup>th</sup> – are mostly disposed on the South-Western part of Alazani Gorge along river tributaries. Mentioned soils are characterized with deep thickness of profile (100-150 cm), and active humus layer (50-70 cm); characterized with brown and grey-brown color; with mechanical content it is clay, the 10<sup>th</sup> and 12<sup>th</sup> varieties are loamy, 11<sup>th</sup> is slight leptosol, and 12<sup>th</sup> is stony leptosol. The 13<sup>th</sup> is characterized with high content of humidity bellow, in 120-140 cm depth, exists underground water.

The 14<sup>th</sup> and 15<sup>th</sup> – disposed on the North-Eastern foothills, are characterized with deep thickness of profile (70-120 cm), and active humus layer varies within 40-50 cm; have brown color; with mechanical content are loamy, carbonated in the whole profile. Contrary, the 15<sup>th</sup> is leptosol and slightly stony, providing high quality wines.

The first, second, 3<sup>rd</sup>, 5<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 13<sup>th</sup> are clay; the others: 4<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> are loamy. Humus content in soil flatbed layer varies within 1,5-4,5 %, of first three – 3,5-5,5 %, and decreases downwards.

Soils are poor with soluble phosphorus content – 1,5-2,5 mg in 100 g soil. Sometimes it is represented as a trace.

Poor with exchange potassium content – 3,5-25,0 mg in 100 g soil, as well.

Potassium carbonates content is in moderate amount, and in high content it is in the first three soil varieties, and reaches 40-60%.

Soil area reaction is mainly moderately and slightly alkaline, pH indicator varies within 7,5-8,3.

On the basis of the conducted studies, agronomic properties of soils of the micro-zone provide the opportunity to produce wine Gurjaani.

**HUMAN FACTOR** – In Kakheti, in particular, Gurjaani, making of high quality wines started from the ancient times. The excellent quality of this production was pointed out by famous travelers, such as: Chardin, Reclus and Gamba. Alexandre Dumas also praised Georgian wine.

The development of the field was facilitated by beginning of scientific-research work in the 1920s. Powerful scientific centers were established in Georgia in this period, including the village Gurjaani, where viticulture-winemaking testing station for Kakheti region was created in 1922. In 1931 the All-Union Scientific-research Institute of Viticulture and Winemaking was set up, which in 1932 was moved to Telavi, Kakheti.

The development, implementation, and perfection of modern methods of winemaking are greatly indebted to the works of L. Jorjadze and V. Petriashvili, as well as P. Melikishvili, V. Tairova, V. Burjanadze, and others.



A little later, this plea of scholars were joined by famous scientists, such as: K. Modebadze, P. Averkin, A. Egorov, G. Gogol-Janowski, M. Gerasimov, I. Tarkhnishvili, and so on.

A more or less full description of Kakheti wines from the zonal viewpoint is found in the works of Professor K. Modebadze, L. Jorjadze, I. Peikrishvili, D. Kasaburi, D. Natsvlshvili, G. Beridze, and others.

Wine "Gurjaani" has been produced since 1887, and it has participated in many competitions and exhibitions, where it was rewarded with 11 medals, till 1990.

Geographical location of the micro-zone "Gurjaani", characteristic regional climate: mild winter and hot summer, moderate amount of atmospheric precipitations, diversity of soils, special features of the varieties: Rkatsiteli and Kakhuri Mtsvane in this area, local, centuries-old tradition of viticulture and winemaking provide the unique organoleptic features of wine "Gurjaani", characteristic only of this wine.

## **11. SPECIAL LABELING RULES**

With Latin font – GURJAANI

Protected Designation of Origin and/or PDO

Cyrillic font – ГУРДЖААНИ

Защищённое наименование места происхождения

## **12. ACCOUNTING AND NOTIFICATION**

Accounting and notification of production and storage technological processes of "Gurjaani" is carried out, in accordance with the rules established by the legislation of Georgia.

### 13. MAIN CONTROLLABLE POINTS

During control of the PDO wine "Gurjaani" production process the producer shall satisfy the requirements established by LEPL National Wine Agency, and shall comply with the following parameters:

Main Controllable Points	Evaluation Methods
Vineyard location	Cadaster map, control on the place
Area	Vineyard accounting magazine, cadaster
Vine variety	Vineyard accounting journal, control on the place
Cultivation methods	Journal of registration of Agrotechnical Measures, treating journal, control on the place
Vintage and transportation	Vintage journal
Grape harvest per ha	Vintage journal
Grape harvest in total	Vintage journal
Grape processing and winemaking	Grape receiving journal, grape processing journal, product turnover calculation journal, laboratory analysis journals, notifications, control on the place
Wine bottling, packaging and storage place and conditions	Bottling journal, journal for motion of ready product in the storehouse, laboratory analysis journals
Physico-chemical characteristics of the wine at winemaking, before and after bottling	Laboratory analysis journals
Organoleptic characteristics of the wine	Tasting commission protocols
Traceability	Technological and laboratory records

### 14. CONTROL BODY OF PRODUCTION

State control for observance of production specification and lawful usage of the appellation of origin PDO shall be carried out by LEPL National Wine Agency, according to the rules established by the legislation of Georgia.

