

TSINANDALI

REGISTRATION № 3

DATE OF REGISTRATION: 2005 30 08

APPELLATION OF ORIGIN: TSINANDALI

NAME OF GOOD FOR WHICH THE APPELLATION OF ORIGIN IS REQUIRED: Wine

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1. APPELLATION OF ORIGIN: TSINANDALI

2. PRODUCT DESCRIPTION

2.1. PRODUCT CATEGORY

Wine "Tsinandali" shall be:

§ white sec (dry);

§ red sec (dry).

2.2. PRODUCT ORGANOLEPTIC CHARACTERISTICS

Wine "Tsinandali" white sec (dry) shall satisfy the following requirements:

§ Color – light straw;

§ Aroma and taste – perfect, delicate, soft, harmonic, cheerful, refined, having aroma characterizing the location, with meadow flowers, fruit and citrus tones;

§ Intensively expressed bouquet of fruit tones is developed with aging.

Wine "Tsinandali" red sec (dry) shall satisfy the following requirements:

§ Color – dark red;

§ Aroma and taste – perfect, full, extracted, velvet, harmonic, having aroma characterizing the location;

§ Intensively expressed bouquet of fruit tones is developed with aging.

2.3. PHYSICAL AND CHEMICAL CHARACTERISTICS OF PRODUCT

White dry wine "Tsinandali" shall satisfy the following requirements:

§ Actual volumetric spirit content – no less than 11 %;

§ Common volumetric spirit content – no more than 15 %;

§ Sugar content – no more than 4 g/l;

§ Titratable acidity in young wine should be – no less than 5.0 g/l, in aged wine – no less than 4.3 g/l;

§ Volatile acidity – no more than 1 g/l;

§ Sulfur dioxide common mass concentration – no more than 200 mg/l;

§ Sugar free extract mass concentration – no less than 16 mg/l.

Red dry wine "Tsinandali" shall satisfy the following requirements:

§ Actual volumetric spirit content – no less than 11 %;

§ Common volumetric spirit content – no more than 15 %;

§ Sugar content – no more than 4 g/l;

§ Titratable acidity in young wine should be – no less than 4.5 g/l, in aged wine – no less than 4.0 g/l;

§ Volatile acidity – no more than 1.2 g/l;

§ Sulfur dioxide common mass concentration – no more than 150 mg/l;

§ Sugar free extract mass concentration – no less than 22 mg/l.

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3. GEOGRAPHICAL AREA AND ZONES OF PRODUCTION

The micro-zone Tsinandali is located in Telavi Municipality, on the right bank of the River Alazani, on the coordinates – 41°54' of Northern longitude and 45°35' of Eastern latitude.

The micro-zone covers the continuing of the North-Eastern forest slopes of Tsiv-Gombori Range from one side, and foothills and Alazani Valley – from another side. Chumatkhevi (Chuma Gorge) borders it from the North-West, and Akuriskhevi (Akuri Gorge) – from the South-East.

The micro-zone Tsinandali includes the following villages: Akura, Vanta, Busheti, Kvemo Khodasheni, Tsinandali, Kisiskhevi, Kondoli, Nasamkhrali, Shalaura, Kurdghelauri, Vardisubani, Ruispiri, Karajala, Gulgula and Ikalto.

The grapes intended for wine "Tsinandali" production shall be harvested only from the vineyards cultivated in the micro-zone Tsinandali.

Grape processing and winemaking takes place in the territory of the micro-zone Tsinandali, and outside, as well, but within Kakheti viticulture area.

4. VINE VARIETIES

Wine "Tsinandali" white shall be prepared only with the grapes of:

§ Rkatsiteli – no less than 85%;

§ Mtsvane Kakhuri (Kakuri Green) – no more than 15%.

In the case of "Tsinandali" white production the usage of other varieties is prohibited.

Wine "Tsinandali" red shall be prepared only from the grapes of Saperavi. Usage of other varieties is prohibited.

5. VITICULTURE PRACTICE

- § The micro-zone Tsinandali vineyards are 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.

6. GRAPE MATURITY, VINTAGE, TRANSPORTATION

- § Wine "Tsinandali" shall be produced only with ripe grapes. Sugar content shall be no less than 19%, at the vintage.
- § Grapes transportation is permitted only with wood or plastic boxes, with bodyworks made of stainless steel or painted with a special dye.
- § Usage of polyethylene packages and/or bags is not permitted.

7. VINTAGE AND WINEMAKING

Vintage on 1 ha vineyard shall be no more than:

- 10 tones – for Rkatsiteli;
- 10 tones – for Saperavi;
- 8 tones – for Kakhuri Mtsvane.

Wine production shall be no more than 650 liters from 1 tone grapes.

8. WINEMAKING PRACTICE

Wine "Tsinandali" white is made by complete fermentation of flowing under gravity the grape juice.

Juice sedimentation is necessary before fermentation executed at no more than 20°C temperature, and after that the sulphitation is carried out.

Wine "Tsinandali" red is produced by complete fermentation of must. The grapes are be pressed and grape stem – removed. The temperature for alcoholic fermentation shall not exceed 30°C, after that the apple-lactic acid fermentation is executed, at the end of that the sulphitation is carried out.

Wine "Tsinandali" may be aged or bottled without aging. At the case of aging the process shall take place in wood barrels within no less than 6 months.

Wine "Tsinandali" shall be represented on consumer market only packed in the bottles.

9. LINK BETWEEN EXCLUSIVE QUALITY, CHARACTERISTICS AND/OR REPUTATION WITH GEOGRAPHICAL AREA

9.1. NATURAL FACTORS

Climate

The climate in the micro-zone is moderately humid, with hot summer and mild winter. Annual duration of sunlight in the micro-zone Tsinandali more than 2300 hours. Direct annual radiation on the perpendicular surface is 76 kcal/cm², and varies within – 92-60 kcal/cm². Scattered annual radiation is 54 kcal/cm², and – 40 kcal/cm² in the vegetation period. Sum of annual radiation is 130 kcal/cm², and 100 kcal/cm² – in the warm period.

The average annual air temperature of the micro-zone is quite high – +12,4°C, in the warmest months – July and August the average temperature is equal to +23,2°C, and that of the coldest month (January) is +0,90°C. Annual absolute minimum is averagely – 10°C, and maximum – +35°C.

Extreme temperatures are change within -23°C – $+38^{\circ}\text{C}$. In most parts of the region the temperature above 10°C is in the April I decade (from 8.IV), and below 10°C – in the beginning of November (3.XI).

Vegetation period duration is 208 days, and sum of active temperatures ($t > 10^{\circ}\text{C}$) is $+3930^{\circ}\text{C}$, on 550 m level.

In the micro-zone Tsinandali annual number of sunny days (0-2 points) in general, and at lower clouds is equal to 52-82, accordingly. During the vegetation period, this indicator is equal to 36-55 days according to cloudiness. Annual quantity of cloudy days (8-10 points) in general and at lower clouds is equal to 122 and 95, accordingly. During the vegetation period, this indicator is equal to 61-45.

The annual sum of atmospheric precipitations is 845 mm, and 644 mm during the vegetation period, in the micro-zone Tsinandali. Maximum of precipitations (157 mm) take place in May, and minimum (28 mm) – in January.

Vine buds opening starts from mid-April, and the grape maturity begins in the second half of August.

Active heat sum ranges within $4100-3500^{\circ}\text{C}$, in Tsinandali micro-zone (on the 300-750 m level).

Hailing days are frequent per year (2.3). May and June are the most hailing months (0,7-0,8) of year and can be even 9 times in the most hailing years.

The relative humidity of air is approximately 70%. The air is less humid (60%) in August, and the most (77%) – in November.

The Western – (33%) and Eastern (23%) Rumb winds are prevailing, in the micro-zone. The average wind speed is 1.7 m/s; amount of annual windy days is not big (10).

Soil

In June-July of 2005, soil specialists of horticulture, Viticulture and Wine Science Research Institute conducted field and workshops on soils research, in order to study the microscopic soil cover. Analysis of soils was conducted at the same in Agrochemical Laboratory of Institute.

On the basis of existing researches, there are distinguished following varieties of soils:

Forest brown, very thick, moderately and very leptosol, heavy clay;

Brown, very thick, somewhere slightly leptosol, loamy and clay;

Brown, moderately thick, slightly leptosol, heavy clay;

Meadow-brown, very thick, heavy clay, loamy;

Meadow-brown, very thick, slightly and moderately leptosol, clay;

Deluvial-proluvial, very thick, slightly and heavy clay;

Alluvial-proluvial, very thick, slightly leptosol, clay;

Alluvial, very thick, heavy clay;

Alluvial, very thick, hard leptosol, clay.

Soils varieties are characterized in accordance of villages.

First – Vanta, Akura (plot nearby ruins), Kisiskhevi (plot "Above Canal").

Second – Busheti (plot bellow railway nearby Tetri Khidi, Shalauri (plot "Bellow the Highway"), Vachnadziani (plot "Khramitsebi").

Third – village Shalauri (plot "Didi Verkhvis Adgilebi").

Fourth – villages: Tsinandali (plot "Teliani"), Kvemo Khodasheni (plot "Naparekhlebi"), Kurdghelaury (plot "Beghanapshebi").

Fifth – Kvemo Khodasheni (plot "Didi Venakhebi").

Sixth and seventh – on the line extended from said villages to Alazani Gorge.

Eighth and ninth – directly on the border of Alazani Terrace.

Brown soils presented in the upper part of the micro-zone (with sub-varieties) are characterized with medium and deep profile. Alluvial, alluvial-proluvial and deluvial-proluvial soils are characterized with deeper profile and various kinds of leptosol.

Soil thickness on upper part, wherein the brown soils are presented is 70-100 cm, and active humus layer is 30-50 cm; below, wherein alluvial, alluvial-proluvial and deluvial-proluvial soils are presented the soils are deeper – 100-150 cm, and active humus layer is 40-50 cm;

Soils mechanical content is mainly characterized with medium and heavy clay composition and soils with slightly loamy – on small parts.

Humus is presented in small amount – within 1.0-2.5%, hydrolyzed nitrogen, soluble phosphorus and exchange potassium content is low, calcium carbonate soils contain them in small and medium amounts – within 2.5-16.0%, soil area reaction (pH) is averagely alkaline.

Soils presented in the micro-zone exclusively (mainly in the North-East and the East) with calcium carbonates content, leptosol and with climatic factors create perfect conditions for high quality wines preparation.

Human Factor

History of viticulture and winemaking takes place from the depths of millennium in Kakheti and in the micro-zone Tsinandali, as in other parts of Georgia. In the course of time it was developed, grown and had taken experience.

At the beginning of the XIX century in Kakhetian prince's estates, the viticulture and winemaking were important. Aleksandre Chavchavadze, who had special place among the nobles, borrowed a million rubles from the bank in 1835 to improve the estates. Large wine cellar with laboratory for winemaking was built in the village Tsinandali. Aleksandre Chavchavadze also built steam distillation factories for vodka.

This was the first attempt to move from the feudal rule to capitalistic, which effectively improved wine quality. Aleksandre Chavchavadze's wines were well known in Russia and appreciated in Europe, too.

From the 1880, Princes Estates Department of the Russian Empire intensively purchased Georgian estates, about 2000 hectares of land in the village Tsinandali among them and its suburbs from the nobles – Chavchavadze, Andronikashvili, Zurabashvili, Bakhutov, Rotinyants, Aznaurov, etc. and began making massifs therefrom and reformation-reconstruction process.

Two-storeyed 150000 bucket cellar-factory and a palace were built, and was opened barrel workshop, in Tsinandali, in 1886-1887. New modern equipment was installed: grape presses, wine pumps, rubbles, tubs, barrels and various other inventories. Additionally, prince estates were staffed with professionals trained in Europe – Gogol-Janowski, Speshnev, Massono, Staroselskiy, Heine, Markovich, Ovcharenko, Tushmalishvili, Jorjadze, Dickinson and others.

From 1880, quite high quality wines were already produced there – "Rkatsiteli Tsinandali N13", "Green Tsinandali №14", "Saperavi Tsinandali №16" obtained the highest ratings at the International Exhibition of Chicago, in 1892.

Three-year school was opened in Tsinandali, in 1897, where children were taught viticulture, winemaking and gardening, together with other subjects.

The wine "Tsinandali" produced by Alexander Chavchavadze was very popular in the Russian Empire and European countries, it is still considered to be the flagship of Georgian wines. He has participated in numerous competitions and exhibitions and has won 10 gold and 9 silver medals until the 1990.

The micro-zone Tsinandali geographical location, regional climate: mild winter and hot summer, moderate precipitations, diversity of soils, special features of Rkatsiteli and Saperavi varieties in this zone, and local centuries-old tradition of viticulture and winemaking define the unique organoleptic features of wine "Tsinandali" characterizing only this wine.

10. SPECIAL LABELING AND PACKAGING RULES

The name "Tsinandali" and the sign – "Protected Designation of Origin" on the label, package, in the documents accompanying the wine, and advertising materials, used in foreign languages, shall be presented as follows:

In Latin Character – **TSINANDALI** Protected Designation of Origin and/or PDO

In Cyrillic Character – **ЦИНАНДАЛИ** Защищённое наименование места происхождения

11. TRANSITIONAL PROVISIONS

12. ACCOUNTING AND NOTIFICATION

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

13. MAIN CONTROLLABLE POINTS

During control of the Protected Appellation of Origin wine "Tsinandali" 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 Protected Appellation of Origin shall be carried out by LEPL National Wine Agency, according to the rules established by the legislation of Georgia.

15. MAP OF THE MICRO-ZONE

