TECHNICAL SPECIFICATIONS FOR THE REGISTRATION OF THE GEOGRAPHICAL INDICATION

NAME OF THE GEOGRAPHICAL INDICATION

TARNAVE

PRODUCT CATEGORY Wine Quality sparkling wine

COUNTRY OF ORIGIN Romania

APPLICANT

Asocia^ia Vitis Transilvania 34 Str. Garii 517385 Jidvei, jud Alba Romania

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PROTECTION IN THE COUNTRY OF ORIGIN

Date of Protection in the European Union: 10/05/2007 Date of protection in the Member State and reference to national decision: 1994, Government Ordinance no. 16/1994

PRODUCT DESCRIPTION

<u>WINE</u>

Raw Material

White varieties: Traminer aromat (Gewurztraminer), Chardonnay, Pinot Gris, Muscat Ottonel, Sauvignon, Neuburger, Riesling Italian, Riesling de Rhin, Feteasca Regala, Feteasca Alba, Furmint. Red varieties: Cabernet Sauvignon, Pinot Noir, Feteasca Neagra, Syrah, Merlot.

Alcohol content :

Actual alcoholic strength of wines bearing the "Tamave"controlled designation of origin must be minimum 11% by volume.

Physical Appearance White, red

QUALITY SPARKLING WINE

Raw Material

White varieties: Chardonnay, Pinot Gris, Muscat Ottonel, Sauvignon, Riesling Italian, Riesling de Rhin, Feteasca Regala, Feteasca Alba, Iordana. **Red varieties:** Pinot Noir.

Alcohol content:

Quality sparkling wines with controlled designation of origin with secondary fermentation in bottles must have an actual alcoholic strength, including by adding the dosage liquor, of minimum 10.5 % by volume.

Physical Appearance White,

Rose, Red Wine.

Greenish-yellowish or yellowish-greenish for white wines, from pink to ruby red for rose and red wines.

DESCRIPTION OF THE GEOGRAPHICAL AREA Wine

The area demarcated for the production of wines with the 'TARNAVE' controlled designation of origin comprises the following localities:

1. Designation of origin ''TARNAVE-sub-designation of origin BLAJ'' may also be supplemented by one of the following single vineyard designations: CRACIUNELU DE JOS, VALEA LUNGA, MANARADE, SANCEL, CENADE, MffIALJ, CERGAU and RO§IA DE SECA§.

The demarcated area for vinification, conditioning and bottling of wines with controlled designation of origin "TARNAVE" includes the following cities located in the **Alba County:**

- the city of Blaj, with the following localities: Blaj, Veza, Manarade, Deleni-Obar§ie, Flite§ti Izvoarele, Petrisat, Tiur, Spatac;

- the municipality of Craciunelu de Jos the villages Craciunelu de Jos, Bucerdea Granoasa;
- the municipality of Sancel the villages Sancel, Iclod, Panade;
- the municipality of Valea Lunga the villages Valea Lunga, Glogove^, Lunca, Lodroman;
- the municipality of Cenade the village Cenade;
- the municipality of Mihal[^] the villages Mihal[^], Cistei, Obreja;
- the municipality of Cergau the villages Cergau Mare, Cergau Mic, Lupu;

- the municipality of Ro§ia de Seca§ - the villages Ro§ia de Seca§, Ungurei, Tau.

2. Designation of origin ''TARNAVE-sub-designation of origin JIDVEI'' may also be supplemented by one of the following single vineyard designations: BALCACIU, CETATEA DE BALTA, §ONA, SANMICLAU§, CAPALNA.

The demarcated area for the production of wines with controlled designation of origin "TARNAVE - JIDVEI" includes the following cities located in the **Alba county:**

- the municipality of Jidvei the villages Jidvei, Tauni, Faget, Balcaciu, Capalna de Jos, Feisa, Veseu§;
- the municipality of Cetatea de Balta the villages Cetatea de Balta, Santamarie, Tatarlaua, Craciunelul de Sus;
- the municipality of §ona the villages §ona, Sanmiclau§, Lunca Tarnavei, Biia.
- **3. Designation of origin ''TARNAVE-sub-designation of origin MEDIA§''** may also be supplemented by one of the following single vineyard designations: DANE§, SELEU§, §EICA MICA, §EICA MARE, AGARBICIU, VALEA VIILOR, MO§NA, RICHI§, AJEL,BLAJEL, BIERTAN, AXENTE SEVER, DUPU§, §ORO§TIN, GURA CAMPULUI, RU§I, DUMBRAVENI, SLIMNIC.

The demarcated area for the production of wines with controlled designation of origin "TARNAVE -sub-designation of origin MEDIA§" includes the following cities located in the Sibiu county:

Sibiu County

- the city of Media? localities Media?, Tarnava, Ighi§u Nou;
- the city of Dumbraveni with the localities: §aro§ pe Tarnave, Ernea;
- the municipality of A^el- the villages A^el, Dupu§, Alma, Giaca§, §mig;
- the municipality of Axente Sever- the villages Axente Sever, Agarbiciu, §oala;
- the municipality of Bazna the villages Boian, Vel^ ;
- the municipality of Biertan the villages Biertan, Richi§;
- the municipality of Blajel- the villages Blajel, Paucea, Romane§ti;
- the municipality of Brateiu the village Buzd;
- the municipality of Darlos- the villages Darlos, Curciu, Valea Lunga
- the municipality of Hoghilag- the villages Hoghilag, Prod, Valchid;
- the municipality of Laslea the villages Malancrav, Flore§ti, Roandola, Nou Sasesc;
- the municipality of Micasasa the villages Micasasa, Chesler, Valeni, Japu;
- the municipality of Mo§na the villages Mo§na, Nem§a;
- the municipality of Slimnic the villages Slimnic, Ru§i, Veseud;
- the municipality of §eica Mare the villages §eica Mare, Boarta;
- the municipality of §eica Mica the villages §eica Mica, §oro§tin;
- the municipality of Valea Viilor the villages Valea Viilor, Moti§.
- **4. Designation of origin ''TARNAVE-sub-designation of origin TARNAVENI''** may also be supplemented by one of the following single vineyard designations: ADAMU§, BAGACIU, SEUCA, IDRIFAIA, GANE§TI, MICA, SUPLAC.
- The demarcated area for the production of wines with controlled designation of origin "TARNAVE-TARNAVENI" includes the localities situated in the wine center "Tarnaveni" from the Mure? county:
- the city of Tarnaveni with the localities Tarnaveni, Botorca, Bobohalma, Cu?telnic;
- the municipality of Adamu? the villages Adamu?, Craie?ti, Dambau, Come?ti;
- the municipality of Bagaciu the villages Bagaciu, Delenii;
- the municipality of Gane?ti the villages Gane?ti, Pauci?oara, Sub Padure, Seuca;
- the municipality of Mica- the villages Mica, Abu?, Capalna de Sus, Haranglab, Ceua?, Deaj;

- the municipality of Supalc - the villages Suplac, Idrifaia, Laslau Mare, Laslau Mic;

- the municipality of Bahnea - the villages Bahnea, Bernadea, Gogan, Cund, Lepindea, Daia, Idiciu.

5. For the wine centers "ZAGAR" and "VALEA NIRAJULUI", the designation of origin

"TARNAVE" may also be supplemented by one of the following single vineyard designations: ZAGAR, JIGMANDRU, BALAU§ERI, SENEREU§, NADE§, VII§OARA, ORMENI§, SANTIOANA, FILITELNIC, VALEA NIRAJULUI. The demarcated area for the production of wines with controlled designation of origin

"TARNAVE", includes the localities situated in

the Mure§ county:

- the municipality of Zagar - the villages Zagar, Seleu§;

- the municipality of Vii§oara - the villages Vii§oara, Ormeni§, Santioana;

- the municipality of Coroisanmartin - the villages Coroisanmartin, Coroi, Odrihei, §oimu§;

- the municipality of Balau§eri - the villages Balau§eri, Filitelnic, Senereu§, Agri§teu, Chedu, Dumitreni;

- the municipality of Fantanele - the villages Calimane§ti, Bordo§iu, Cibu, Roua, Viforoasa; -the municipality of Nade§ - the villages Nade§, Tigmandru, Magheru§, Pipea;

- the municipality of Acatari - the villages Acatari, Corbe§ti, Gaie§ti, Roteni, Murge§ti, Stejeri§, Grui§or, Valenii;

- the municipality of Craciune§ti - the villages Craciune§ti, Corne§ti, Budiu Mic, Cinta. Quality

sparkling wine

The area demarcated for the production of raw material wines for the production of sparkling wines with the 'TARNAVE' controlled designation of origin comprises the following localities in the counties of Alba, Sibiu and Mure§:

ALBA County:

- the city of Blaj, with the localities Blaj, Veza, Manarade, Petrisat, and Tiur;

- the municipality of Craciunelu de Jos: the villages of Craciunelu de Jos and Bucerdea Granoasa;

- the municipality of Sancel: the villages of Sancel, Iclod and Panade;

- the municipality of Valea Lunga: the villages of Valea Lunga, Glogovet, Lunca, and Lodroman;

- the municipality of Cenade: the village of Cenade;

- the municipality of Mihalt: the villages of Mihalt and Cistei;

- the municipality of Cergau: the villages of Cergau Mare, Cergau Mic and Lupu;

- the municipality of Ro§ia de Seca§: the villages of Ro§ia de Seca§, Ungurei, and Tau;

- the municipality of Jidvei: the villages of Jidvei, Tauni, Faget, Balcaciu, Capalna de Jos, Feisa and Veseu§;

- the municipality of Cetatea de Balta: the villages of Cetatea de Balta, Santamarie, Tatarlaua and Craciunelul de Sus;

- the municipality of §ona: the villages of §ona, Sanmiclau§, Lunca Tarnavei, and Biia.

SIBIU County:

- the city of Sibiu with the localities Tarnava and Ighi§u Nou;

- the municipality of Atel : the villages of Atel and Dupu§;

- the municipality of Axente Sever: the villages of Axente Sever and Agarbiciu;

- the municipality of Biertan: the villages of Biertan and Richi§;

- the municipality of Blajel : the villages of Blajel and Paucea;

- the town of Dumbraveni: Dumbraveni and §aro? pe Tarnave;

- the municipality of Mo?na: the villages of Mo?na and Nem?a;
- the municipality of §eica Mica: the villages of §eica Mica and §oro?tin;
- the municipality of §eica Mare: the village of §eica Mare;
- the municipality of Slimnic: the villages of Slimnic, Ru?i and Veseud;
- the municipality of Valea Viilor: the villages of Valea Viilor and Moti?;
- the municipality of Bazna: the villages of Boian, Velt, and Bazna;
- the municipality of Darlos: the villages of Darlos and Valea Lunga;
- the municipality of Hoghilag: the village of Hoghilag;
- the municipality of Micasasa: the villages of Micasasa and Tapu;
- the municipality of Laslea: the villages of Laslea and Roandola;

MURE§ County:

- the municipality of Dane?: the villages of Dane?, Seleu?, Cri?, and Stejarenii;

- the city of Tarnaveni with the localities of Tarnaveni, Botorca, Bobohalma, and Cu?telnic;
- the municipality of Bagaciu: the villages of Bagaciu and Delenii;
- the municipality of Gane?ti: the villages of Gane?ti, Pauci?oara, Sub Padure, and Seuca;

- the municipality of Mica: the villages of Mica, Abu?, Capalna de Sus, Haranglab, Ceua?, and Deaj;

the municipality of Suplac: the villages of Suplac, Idrifaia, Laslau Mare, and Laslau Mic.

LINK WITH THE GEOGRAPHICAL AREA (WINE)

The quality of the wines with 'TARNAVE' controlled designation of origin is primarily ensured by the climate and soil of the region. The natural conditions found here are among the most favourable for vine growing.

TARNAVE Vineyard is located in the **hydrographic basin** of two rivers, the Tarnava Mica and Tarnava Mare, at the following geographical coordinates: between $45^{0}57^{"}$ and $46^{0}32^{"}$ parallels north and between 23052" and 24048" meridians east, offering confirmation of favourable conditions for vine growing.

II. 1. Relief

Relief is fragmented, made up of a generally south-western facing, typical hill configuration, including almost all types of relief and elements of gradient. The largest share is made up of medium altitude (400-600 m) relief. Between altitudes of 250-270 m and 400-450 m, the land gradient ranges between 5% and 20%, allowing for mechanised works on the vine plantations.

The slopes exposed to sunshine (south, south-east, south-west) on which the vine is cultivated are short with, more prominent inclines in the upper and medium third, where they are affected by erosion. The foot of the gradient of these slopes is uniform, slightly inclined and adequate for agriculture.

The vine plantations are generally located on the southern, south-eastern and southwestern slopes and on the valleys between the hills where there are heat and light sources; they provide shelter for vines against wind, and late spring and early autumn hoar frost. The hydrographical network is supplied by underground springs and partially by slope springs, which appear quite frequently on slopes made up of characteristic alternating clay layers or impermeable marls, permeable sandstones and sands.

2. Temperatures

The climate has been an essential environmental component for the establishment and development of the Tarnave wine growing area. The area has a moderate continental- temperate climate with moderately hot summers and harsh and humid winters, but long and predominantly cloudless autumns, influenced by western air masses and the presence of the Carpathian mountain range protecting the region against cold currents from the north-east and east.

Air temperature is the main factor limiting vine growing, the commencement and duration of vegetation phases, and the quantity and quality of production. The multiannual average value (1995-2006) of the air temperature at the Jidvei wine-making centre is 9.7° C, which is 0.7° C higher than the value recorded at the Tarnave wine growing area, Tarnaveni 8.3° C, with average monthly variations between that of January, of -4 - -5°C, and that of July, of+18 - +19°C.

The specificity of the area is represented by the occurrence of fog at the end of summer and during almost a third of the autumn days (September, October), which causes a slow maturation of grapes, preserving aromas and a constantly high acidity; such elements have a positive impact on the quality of the wines obtained. Moreover, during the maturation of grapes, daytime temperatures vary around an average value of 22°C, while night time temperatures vary around an average value of 12°C.

The two factors cause a constant increase in the sugar content of grapes, while acidity decreases and remains constant or nearly constant at a slightly higher level (approximately 8-9 g/l tartaric acid). The oxide reducing environment in grapes becomes favourable for a qualitative increase in the content of free and bound aromas, which reaches high values at the end of the ripening period.

3. Humidity

Vine is a plant that adapts easily both to high humidity and to drought conditions. Humidity is of relevance in terms of the quantity of precipitation and air hygroscopicity. Vine growing is possible in regions with precipitation ranging between 500 and 700 mm, with a minimum 250-300 mm in the vegetation period.

The relative air humidity is 60 to 80%, which is optimum for vine growing.

4. Wine-growing soils

The Tarnave wine growing area has a wide variety of soil types and sub-types: eutric cambisols, illuvial brown clay soils, carbonaceous regosols, colluvial soils and anthrosols. The best soils for vine growing are the typical eutric cambisols and illuvial brown clay soils, and the luvisols, due to their medium texture and moderate acidity, and their humus content.

Regosols can be found on the steep slopes and on the rounded hillocks whereas the anthrosols can be found on the terraces resulted from the dislocation of large amounts of soil. Owing to the high content of active calcium and low values of easily assimilable iron, such soils frequently experience chlorosis. Black grassland soils with a loam-clayey

texture and high humus content have formed on marls where groundwater is at a depth of 3-5 m. On slopes, in particular in the upper third and on ridges, the soils are in different phases of erosion, ranging from weakly to excessively eroded.

In general, the soils are poor in nitrogen (9-29 ppm) and mobile phosphorus (8-24 ppm), and have moderate mobile potassium content (120-237 ppm).

The predominant type of soil is the brown soil. Black grassland soils with a loam-clayey texture and high humus content have formed on marl where groundwater is at a depth of 3-5 m.

Carbonated colluvial soils can be found at the base of the gradients and in small depressions. Vertisols have a high share whereas arenosols appear only in isolated cases. The low temperatures during the harvesting period, of $5-10^{\circ}$ slow down the oxide reduction and enzymatic processes, thus enabling the grapes to stay healthy and the aromas specific to each variety to be preserved. The high level of acidity in must represents a significant factor in must clarification and subsequently serves as an accelerator of the fermentation process.

Over the centuries, the varieties cultivated in this wine growing area, the vineyard works, and vine and wine technology have been a major preoccupation for wine growers. The quality sparkling wines of the Tarnave wine growing area reflect the variety, the soil, the micro-climate, the vine-grower and the wine-maker. They are characterized by freshness and slightly higher acidity. The wines are smooth and display a wealth of aromas specific to the variety used.

LINK WITH THE GEOGRAPHICAL AREA

(QUALITY SPARKLING WINE)

The quality of raw material wines for quality sparkling wines with the 'TARNAVE' controlled designation of origin is primarily ensured by the climate and soil of the region. The natural conditions found here are among the most favourable for vine cultivation, the area being included in the wine-growing zone B.

The Tarnave wine-growing area is located in the basin of the Tarnava Mica and Tarnava Mare rivers. Geographical coordinates: between parallels 45057' north (the village of Loamne§, Sibiu County) and 46032' north (Miercurea Nirajului) and between meridians 23052' east (Craciunelu de Jos) and 24048' east (Sighi§oara-Miercurea Nirajului). These geographical coordinates, together with the hilly topography, justify the biological, soil and climate advantages favouring the cultivation of vine in the area.

Vine has been known in the Tarnave wine-growing area since the Iron Age (5th century BC), as attested to by the archaeological diggings which unearthed winemaking tools and recipients specific for that period.

Herodotus (484-425 BC) mentioned in his writings that the Agathyrsi, settled in the valleys of the Mure§ and the two Tarnava rivers, had renowned vine plantations in the 6th century BC. Well known Hungarian historian Sigismund Kabal mentioned in his writing that the region had prosperous vineyards when the Hungarians arrived.

The wines from these lands have been known since ancient times, both domestically and abroad. They have been appreciated and rewarded with diplomas and medals at the great international events in Europe, America and Asia.

The great gold medals obtained by the Traminer wines at Montpellier in 1958 and Ljubljana in 1974 confirmed their value and exceptional nature.

The fact that new vine varieties were introduced for cultivation and the use of the latest developments in the fields of agricultural technology, agricultural chemistry and winemaking techniques have enabled the Tarnave Vineyard to win, through its legendary wines, numerous gold and silver medals at national and international contests in Bucharest, Brussels, Verona, Barcelona, Prague, Erfurt, Monte Carlo, London, Quebec and so on, thus confirming the particular qualities of these wines which reflect the vocation of this area and the specificity of the varieties used, conferring them an acknowledged and admired identity.

1 Topography

The topography is uneven, characterized by a typically hilly configuration, with a general southwestern orientation. It includes almost all types of terrain and inclination. Medium- altitude landforms (400-600 m) are predominant. Between the altitudes of 250-270 m and 400-450 m, the land gradient ranges between 5% and 20%, enabling the performance of mechanized works on the vine plantations. The sun-exposed slopes (south, south-east, south-west) where vine is cultivated are short and have steeper inclination in the upper and medium third, where they are affected by erosion. The base of these slopes is even, slightly inclined, and adequate for agriculture. The vine plantations are generally located on the southern, south-eastern and southwestern slopes and in the valleys between the hills where there is heat and light; they protect the vine against the wind, and late spring and early autumn hoar frost. The hydrographical network is supplied by underground springs and partially by streams which appear quite frequently on the slopes made up of characteristic alternating clay layers or impermeable marls, permeable sandstones and sands.

2. Temperatures

The climate has been an essential environmental component for the establishment and development of the Tarnave wine growing area. The area has a moderate continental- temperate climate with moderately hot summers and harsh and humid winters, but long and predominantly cloudless autumns, influenced by western air masses and the presence of the Carpathian mountain range protecting the region against cold currents from the north-east and east.

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The specificity of the area is represented by the occurrence of fog at the end of summer and during almost a third of the autumn days (September, October), which causes a slow maturation of grapes, preserving aromas and a constantly high acidity; such elements have a positive impact on the quality of the wines obtained. Moreover, during the

maturation of grapes, daytime temperatures vary around an average value of 22°C, while night time temperatures vary around an average value of 12°C.

The two factors cause a constant increase in the sugar content of grapes, while acidity decreases and remains constant or nearly constant at a slightly higher level (approximately 8-9 g/l tartaric acid). The oxide reducing environment in grapes becomes favourable for a qualitative increase in the content of free and bound aromas, which reaches high values at the end of the ripening period.

3. Humidity

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4. Wine-growing soils

The Tarnave wine growing area has a wide variety of soil types and sub-types: eutric cambisols, illuvial brown clay soils, carbonaceous regosols, colluvial soils and anthrosols. The best soils for vine growing are the typical eutric cambisols and illuvial brown clay soils, and the luvisols, due to their medium texture and moderate acidity, and their humus content.

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SPECIF RULES FOR LABELLING

WITHOUT ADDITIONAL PROVISIONS **CONTROL BODY** Oficiul National al Viei §i Produselor Vitivinicole

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