

Product specification

1. Name to be protected

«Aylés»

2. Wine description

a- Analytical characteristics of the wines:

a.1. The actual alcoholic strength by volume shall be between:

- Between 12 and 14.5 % vol ($\pm 5\%$) for rosé wine and for 'young' and 'barrel' red wines.
- Between 13 and 14.5 % vol ($\pm 5\%$) for the 'crianza' red wine.
- Between 13.5 and 14.5 % vol ($\pm 5\%$) for the 'tres de 3000' red wine.

a.2. Total sugars expressed in terms of fructose and glucose

- Less than 5 g/l ($\pm 5\%$) for rosé wine and for 'young' and 'barrel-aged' red wines.
- Less than 4 g/l ($\pm 5\%$) for 'crianza' and 'Tres de 3000' red wines.

a.3. The total acidity, expressed as tartaric acid, shall be between 4 and 7 g/l.

a.4. The volatile acidity, expressed as acetic acid, shall be:

- less than 0.85 g/l. for rosé wine and for 'young' and 'barrel-aged' red wines.
- less than 0.90 g/l. for 'crianza' and 'tres de 3000' red wines.

a.5. Total sulphur dioxide shall be:

- less than 90 mg/l ($\pm 10\%$) for rosé wine and for 'young' and 'barrel-aged' red wines.
- less than 100 mg/l ($\pm 10\%$) for 'crianza' and 'tres de 3000' red wines.

b- Organoleptic characteristics of the wines:

a) Rosé: Visual phase: limpid, bright, with good and attractive color intensity, between pink and violet. Olfactory phase: high - very high intensity, with the presence of complex aromas and predominance of primary aromas (floral or fruity) provided by the variety. Tasting phase: high intensity, long aftertaste and a balanced tannic structure with alcohol and glycerin.

b) "Young" red wine: Visual phase: crystalline and limpid. High intensity, with a purple, violet hue. Olfactory phase: high to very high intensity, with a predominance of primary aromas (fruity and floral) over secondary aromas (fermentative). Reminiscences of red fruits. Tasting phase: smooth and harmonious passage and entry in the mouth, fruity expression and long length at the end of the palate.

c) "Barrel-aged" red wine: Visual phase: clear, bright, high color intensity, with violet and red tones. Olfactory phase: high intensity, with the presence of complex aromas (floral or fruity) and frank aromas of aging with toasted and smoked aromas, although they should be present but should not predominate over the former. Tasting phase:

complexity in the mouth, presence of wood tannins, good tannic structure without being aggressive, long aftertaste and round finish.

d) “Crianza” red wine: Visual phase: clear, bright, high color intensity, with red tones. Olfactory phase: medium-high intensity, with aromas of red fruit, spices, minerals and aging with toasted and smoked aromas. Tasting phase: high intensity, balanced in the sugar/acidity ratio, with a notable presence of fine tannins. Long, elegant and subtle aftertaste.

e) “Tres de 3000”: Visual phase: clear and bright, very high color intensity with a very attractive hue (violet and red). Olfactory phase: high intensity with the presence of very accentuated fruit aromas (red and black fruits), great complexity due to the aromas contributed by the new barrel (toasted and smoked) and those contributed by the soil (minerality). Tasting phase: very high intensity, great presence and power in its passage and entry in the mouth and with a very long aftertaste. Long finish, ample and with very pleasant sensations.

3. Specific oenological practices

- Cultivation practices:

The planting frame will be 3 x 1 meters, so the planting density is 3,300 vines per hectare.

The training system will be “double cordon royat”, with green pruning to regulate the clusters. Due to the density of the vineyard, the maximum limit of 40,000 buds per hectare may not be exceeded.

Irrigation will be drip-based and will be applied taking into account the ecological conditions of the vintage and the time of the vegetative cycle. Its purpose will be to supplement rainfall to meet the water needs of the plants when necessary.

Three phases can be distinguished in the application of irrigation:

Phase 1: Until bud break. Water needs in this phase are generally met by nature itself (rainfall, soil reserves). In the event of reaching sprouting without sufficient water, irrigation would be used until the field capacity of the soil is reached.

Phase 2: Fruit set to veraison. During this phase of cell multiplication in the berry, irrigation should be moderate.

Phase 3. Veraison to maturity. In the twenty days prior to harvest, irrigation should not be carried out unless there is a very intense water deficit that endangers the survival of the plant. Water distribution should also be done on a weekly basis.

Fertilization, like irrigation, will be applied in order to maintain the vegetative balance of the plants and should be in accordance with their yields, avoiding excessive vigor during the period of fruit development.

Vine health will be maintained using integrated pest management. Treatments will be applied after a prior analysis of the situation, considering the cycle and damage threshold of pathogens, with minimal environmental impact

Soil maintenance work will be aimed at preserving the structure and combating erosion, facilitating the infiltration of rainfall and preventing runoff. In certain periods of rainy springs, plowing will be replaced by mowing of adventitious weeds in the alleys. Vine health will be maintained using integrated control criteria, for which treatments will be applied after a prior analysis of the situation, taking into account the cycle and threshold of pathogen damage and the least possible impact on the environment.

Yield control, after fruit set, harvest forecast controls will be carried out and, when it is detected that the harvest may exceed the maximum yields established, the bunches will be thinned.

Grape selection, only healthy grapes in a perfect state of maturity will be destined to be used as single-vineyard wines, for which purpose periodic controls of their evolution will be carried out from veraison onwards. After the grapes are harvested, vinification will be immediate.

- Specific oenological practices:

Harvest: The grapes will be harvested mechanically (always choosing the minimum daily temperatures). As a general rule, harvesting time will be from 00:00 to 10:00, so it will be considered a night harvest. Manual harvesting will only be applied in vintages and winemaking processes in which mechanical harvesting does not allow a selection of the different qualities to be made in the vineyard.

The minimum natural alcoholic strength by volume shall be:

- a) "young" red, rosé and "barrel-aged" red: 12% vol.
- b) "Crianza" and "Tres de 3000" red wines: 13% vol.

Alcoholic fermentation: As the vineyard is next to the winery, the vinification of the grapes will be carried out immediately after the harvest

Each variety will be vinified separately.

a) Young red wine (tinto joven): A pre-fermentative maceration will be carried out for 5 to 7 days. Alcoholic fermentation will last 10 to 12 days, during which the temperature will be continuously monitored, which in this case should be between 24° and 26°C. The density of the must-wine must also be monitored on a daily basis.

b) For the rosé: A cold skin maceration will be carried out for 10 hours. Alcoholic fermentation will last from 10 to 12 days and the temperature will be continuously controlled, which in this case will be between 14° and 16°C. The density of the must-wine will also be monitored daily.

Subsequently, for the "Crianza" and "Tres de 3000" reds, a post-fermentation maceration with the skins will be carried out.

Pressing: For pressing operations, only hydraulic and pneumatic presses will be used, obtaining a maximum of 70 liters of wine for every 100 kilograms of grapes. At this stage, before malolactic fermentation begins, micro-oxygenation may be carried out, to avoid unnecessary racking and pumping over, up to a maximum dose of 5 mg/l.

The barrels will be of French, American and Eastern European oak, with a capacity of between 225 and 300 liters.

Elaboration of the different subtypes of wine:

- a) "Young" Red: Blend of the four varieties that have been cultivated in the "Aylés" Pago (Garnacha Tinta, Merlot, Tempranillo and Cabernet-Sauvignon).
- b) "Barrel-aged" red wine: Made from a blend of the four varieties mentioned above, blended in variable proportions and aged in barrels for between 4 and 6 months.
- c) "Crianza" red wine: Made from Merlot, Cabernet-Sauvignon and Tempranillo. It undergoes a barrel aging process of between 6 and 12 months, remaining the remaining time up to 24 months in the bottle.
- d) "Tres de 3000": This wine is made from selected Merlot, Cabernet-Sauvignon and Garnacha vineyards. It remains in a selection of barrels for 12 months, which will be 75% new barrels and 25% barrels of second filling.
- e) Rosé: Obtained by the bleeding method from the red varieties determined by the technical department for each vintage.

4. Demarcation of the geographical area

The area of the "Aylés" estate susceptible of containing vineyards producing Vino de Pago wine comprises the following plots of land in the municipality of Mezalocha (Zaragoza):

Polygon 16:

Plot 2, enclosures 1,3,5,7,8,9,10,12,21,36,37.

Plot 3, enclosure 1

Plot 4, enclosure 1

Plot 12, enclosures 4,16,17,18,19,19,20,33,33,39,40,45,47,48,50,51,53,53,55,56,57

Plot 13, enclosure 23

Polygon 19:

Plot 212, enclosure 1

Plot 213, enclosures 1 and 3

Plot 214, enclosures 1 and 4.

The enclosures correspond to the references of the Geographic Information System of Agricultural Parcels (SIGPAC).

5. Maximum yield

The maximum production allowed per hectare is 8.000 kg of grapes.

The maximum production allowed per hectare will be 56 hectoliters of wine.

6. Grape variety or varieties

Red Grenache, Tempranillo, Cabernet Sauvignon and Merlot.

7. Link with the geographical area.

a) Characteristics of the geographical area.

Historical:

“Aylés” is an agricultural estate of 2,703 hectares located in the municipality of Mezalocha (Zaragoza), included in the delimited area of the Cariñena Designation of Origin.

A former estate owned by the Cistercian Order and Aragonese notables such as the first Justice of Aragon or the Marquis of Tosos, its name has been mentioned since 1165.

The existence of vines in “Aylés” has been known since the beginning of the last century, although the first documentary reference is a plot plan from 1940, where an extensive vineyard is fully established, precisely in the fields where the oldest vineyard of the estate is located today, in Monte Blanco.

In the cadastral files there is a reference from 1953, relating to Monte Blanco, where Joaquín Felipe Martín, owner of the estate, states that he is the owner of vineyards on the estate (polygon 16, plots 42 and 44).

The wine from this estate, being a productive unit, in marketing has always carried the name “Aylés”.

Natural:

The production area destined for the production of “Aylés” pago wine is located within the Ebro basin, in the sub-basin of the Huerva river, which crosses it from South to North.

There is a predominance of limestone, marl and conglomerates.

The soils have slopes between 1-4 %, with a low-medium erosion and a flat relief (+ concave and convex...).

In this zone there are no appreciable problems of stoniness.

The fine fraction of these soils is dominant, and the predominant size of the coarse elements is less than 1-2 cm.

As for the classification of soils by USDA taxonomic units (United States Department of Agriculture, 2003), they belong to the haploxeralf group, the most interesting for vine cultivation. It is characterized by an argillic horizon (Bt) in a fairly uniform profile, and vine nutrition and water supply are favored.

The soils of the farm contain calcium carbonate in very high proportions, between 25 and 50%, and this is related to good aggregation in the upper horizons. Calcium carbonate is important as a source of calcium and the vine has specific requirements for it.

Active limestone is of the highest interest as it is indispensable for a correct choice of rootstock, avoiding chlorosis of grafted vitis vinifera varieties, as well as being considered as a quality factor to be taken into account. These soils are characterized by a balanced level of limestone, which translates into alcoholic wines of excellent quality.

There are no salinity or alkalinity problems on the “Aylés” farm. The values are low and medium-low in most of the farm.

Regarding the textural class of the soils, there is an important homogeneity with a predominance of loam, sandy clay loam and clay loam classes.

In this homogeneity there is an important advantageous situation: there are no contrasting textures (profile uniformity).

In the case of the “Aylés” farm, most of the clay values of the surface horizon are between 25 and 35%. Clay soils with values lower than 45% provide wines rich in extracts, well colored, aromatic and with the correct acidity, and it is on these surfaces that the “Aylés” vineyards are located.

Fe, Mn, Cu, Zn and B were studied. With the exception of boron, the other trace elements present medium and low levels in the soils of the farm.

The climate of the area is characterized by average annual rainfall not too abundant, between 350 and 550 mm, with a seasonal pluviometric regime with equinoctial maximums and the driest season being the summer. With average temperatures between 13° and 15°C, with a notorious annual and daily thermal amplitude, and frequent frosts, although few months with average monthly temperatures below 6°C. According to Martín Vidé and Olicna (2001), the climate can be classified as continental Mediterranean, and according to Capel Molina's classification as cold continental temperate with a dry season.

The mean annual soil temperature at 50 cm is higher than 15°C but lower than 22°C and the difference between the summer and winter averages exceeds 5°C. Similarly, the xeric moisture regime assumes that the soil is dry at least half of the days when the soil temperature is above 5°C, is dry more than 45 consecutive days during the 4 months following the summer solstice and is wet more than 45 consecutive days during 4 months following the winter solstice.

b) Product characteristics.

Based on the study carried out by the “Laboratorio de Análisis del Aroma y Enología” of the Department of Analytical Chemistry of the University of Zaragoza, directed by Professor Juan Cacho, it is possible to establish the differences between the wines of “Aylés” and those of its surroundings, based on the link between the wines and the geographical and climatic environment of the “Aylés” estate, as demonstrated by the corresponding analyses.

The different composition of the “Aylés” wines gives more intense aromas in the young wines, as well as a greater identification of the fruit in the crianzas, with respect to other wines from the surrounding area.

This is based on the different composition of components such as, for example, that:

- The young wine produced in the “Aylés” vineyards has a 4 times lower acetoin content, 1.2 times lower γ -nonalactone content, 4 times lower benzyl alcohol content and 1.6 times lower furfuryl alcohol content. On the other hand, it has a higher content of esters such as isoamyl acetate, 2 times higher, ethyl decanoate, 1.6 times higher, and diethyl succinate, 1.3 times higher (esters contribute strongly to the fruity aroma of young wines and since the work of Du Plessis (1975) it is considered that esters are directly responsible for the quality of young wines), all this with respect to other wines of its environment.

- The aged wine produced at “Ayles” has a 1.6 times lower acetoin content, 4 times lower 4-ethyl phenol and 2.5 times lower 4-ethylguaicol content, and a higher ester content (2-methyl ethyl 2-butyrate 2.5 times higher, isobutyl acetate 1.5 times higher, ethyl furoate

1.5 times higher, ethyl isovalerate 2.7 times higher), and in lactones (1.4 times higher in the wine produced in “Aylés” than in other wines).

It is concluded after the study that the wines produced in “Aylés” present a specific singularity with respect to the other wines of the environment thanks to their composition.

c) Causal interaction.

The intersection of the different maps of the environmental factors studied (climate and lithology) and the conclusions of the soil section allow us to conclude the great specificity of the environment in the “Ayles” estate, giving rise to wines with a differentiated character.

The uniqueness of the plots that make up the “Aylés” estate plays an effect linked to what is called “terroir”, especially in those situations of medium-low fertility soils with good drainage. A low average organic matter (0.75-1.5%) in most of the soils and a soil poor in nitrogen (<1 per 1000) but with an adequate C/N ratio (>10%) result in wines rich in extract and anthocyanins.

Weak element contents in the superficial layers of the soil favor the extension of the roots in depth; this deep rooting allows a greater regularity in the water supply of the vine and, from this point of view, the weak element contents are considered as a quality factor. It should also be noted that the cation exchange capacity (CEC) presents a medium-high value (10-25 cmol+/kg clay and/or organic matter).

These characteristics are reflected in balanced wines, without being acidic, and in the best expression of fruity and floral aromas. In addition, the significant day-night temperature difference decreases the ripening rate and increases the synthesis of aromas and polyphenols.

8. Applicable requirements.

a) Legal framework

National legislation:

ORDER of July 25, 2009, of the Minister of Agriculture and Food, provisionally recognizing the “Aylés” pago wine.

ORDER of September 26, 2011, of the Regional Minister of Agriculture, Livestock and Environment, adopting a decision in favor of the recognition of the “Aylés” pago wine and approving its specific regulations.

Registers of the appellation:

- a) Register of vineyards
- b) Register of wineries
- c) Register of labels

b) Additional requirements

i) Winemaking

Exception to winemaking in the defined geographical area:

As it is a Pago wine, when delimiting the area, no municipal demarcation was made but rather it was delimited by polygon/parcel/precinct (by sigpac reference). Therefore, the area where the winemaking cellar is located, next to the vineyards, as it has no agricultural use, was not included in the polygon/plot/precinct list, since the technical standard was drafted by listing the sigpac classification of the agricultural land where the vines that produce the protected wine can be cultivated.

Now, in accordance with Article 6.4.a) of Commission Regulation (EC) No. 607/09, it is specified that the wine can be made in the cellar of the Aylés estate, located in the immediate vicinity of the delimited area.

ii) Bottling

The wine will be bottled at the winery facilities located on the estate.

This process will avoid as much as possible all mechanical processes, such as filtration, racking, pumping, or other similar processes, since all of them gradually diminish the quality of the wines. It is considered that the potential of these wines is intrinsically linked to their place of origin, to the site where they are produced. Therefore, it will be of vital importance that all the processes that have something to do with the quality of the product are carried out within the winery itself, thus avoiding possible quality losses derived from actions such as unnecessary pumping, transport, or other similar actions.

iii) Labeling

The traditional terms that may be used on protected wines are:

- Traditional term, referred to in Article 118 duovicies.1a) of Council Regulation (EC) No. 1234/2007 of 22 October 2007: "Vino de Pago".
- Traditional terms, as referred to in Article 118 duovicies.1b) of Council Regulation (EC) No. 1234/2007 of 22 October 2007: "Crianza", "Reserva", "Gran Reserva", "Añejo", "Noble", "Clásico", "Rancio", "Superior" and "Viejo".

9) VERIFICATION OF COMPLIANCE WITH THE SPECIFICATIONS

a) Inspection

The verification of compliance with the specifications of the present bidding documents corresponds to:

Name: Instituto Navarro de Tecnologías e Infraestructuras (INTIA).
Address: Avda. Serapio Huici, 22
31610 Villaba (Navarra)
Telephone: (34) 948 013045

b) Tasks

- i) Control methodology

Audit

During the certification audit the auditor will verify all applicable control points and perform:

- "On-site" inspections (field, facilities).
- Documentary review

- Sampling
- Quality system

The frequency of control will generally be annual, although this frequency may be increased at the discretion of the certification body.

The time of the audit shall be when the product to be certified is being handled, processed or close to harvesting in the case of vegetable certifications.

SAMPLING PROGRAM

When required Instituto Navarro de Tecnologías e Infraestructuras (INTIA) will take product samples for analysis, which will be sent to laboratories accredited under the UNE-EN-ISO/IEC 17025 Standard.
