# EGTOP/2023



EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT

Directorate B. Quality, Research & Innovation, Outreach B.4. Organics

# **Expert Group for Technical Advice on Organic Production**

# EGTOP

Wine II Final Report

The EGTOP adopted this technical report at the plenary meeting of 6-8 March 2024

# Wine II– EGTOP Final Report

# About the setting up of an independent expert group for technical advice

Regulation (EU) 2018/848<sup>1</sup> requires that products and substances used in organic production may only be authorized if they comply with the principles, criteria and objectives of organic production described in that Regulation. The Commission has decided that when taking decisions on these authorizations it will take account of scientific advice by a group of independent experts. For that purpose, the Commission has set up the Expert Group for Technical Advice on Organic Production (EGTOP) by Commission Decision 2021/C343/03 of 4 August 2021.

#### EGTOP

The Group's tasks are:

(a) to assist the Commission in evaluating technical matters of organic production, including products, substances, methods and techniques that may be used in organic production, taking into account the objectives and principles laid down in Regulation (EU) 2018/848 and additional policy objectives with regard to organic production.

(b) to assist the Commission in improving existing rules and developing new rules related to Regulation (EU) 2018/848;

(c) to stimulate an exchange of experience and good practices in the field of technical issues related to organic production.

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The report of the Expert Group presents the views of the independent experts who are members of the Group. They do not necessarily reflect the views of the European Commission. The reports are published by the European Commission in their original language only.

http://ec.europa.eu/agriculture/organic/home\_en

<sup>&</sup>lt;sup>1</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0848&from=EN

# **ACKNOWLEDGMENTS**

Members of the Group are acknowledged for their valuable contribution to this technical advice.

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# 1. EXECUTIVE SUMMARY

The Expert Group for Technical Advice on Organic Production (EGTOP) was requested to advise on the use of vacuum distillation for the purpose of the production of de-alcoholised wines (alcohol equal or below 0.5 % vol.). The Group discussed whether the use of this technique is in line with the objectives and principles of organic production and whether Part VI of Annex II of Regulation (EU) 2018/848 should therefore be amended.

With respect to food processing the Group recommends:

• to amend Part VI of Annex II point 3.3 of Regulation (EU) 2018/848, listing vacuum evaporative techniques among permitted practices, exclusively for the production of totally dealcoholised wines, providing the limitations in terms of temperature (75°C) and filtration pores (not smaller than 0.2 micrometres) are fulfilled.

# 2. BACKGROUND

The German association BÖLW submitted a dossier requesting to include vacuum distillation for complete de-alcoholisation of organic wines. The dossier preparation was supported by INCAVI, the Catalan Institute for research on wine.

# 3. TERMS OF REFERENCE

In light of the most recent technical and scientific information available to the experts, the Group is requested to answer if the use of vacuum distillation to produce de-alcoholised organic wine is in line with the objectives, criteria and principles as well as the general rules laid down in Regulation (EU) 2018/848 of the European Parliament and of the Council and, hence, can be authorized to be used in organic production under the EU organic legislation.

For the preparation of its report, the Group is invited to examine technical dossiers provided to the Commission by the Member States and suggest amendments to Part VI of Annex II of Regulation (EU) 2018/848.

# 4. CONSIDERATIONS, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction, scope of this report

The request of the German association BÖLW submitted in 2023 refers to the need to review point 3.3 of Part VI of Annex II of Regulation (EU) 2018/848 in order to allow the de-alcoholisation of organic wines .

Organic de-alcoholised wines, obtained through the physical removal of ethanol, were already on the market since years (mainly in Germany) labeled as "organic drinks", as the EU horizontal regulation was not including them in the "wine regulation". The entry into force on 7/12/2021 of the Rules established at the last reform of CAP (Regulation (EU) 2021/2117), implies that de-alcoholised wines enter the "wine regulation", so requesting them to fulfill all "wine" and, if it is the case, "organic wine" rules.

The amendment on oenological practices in the Regulation (EU) 2021/2117 of the European Parliament and of the Council of 2 December 2021 amending Regulation (EU) No 1308/2013 establishing a common organisation of the markets in agricultural products, (EU) No 1151/2012 on quality schemes for agricultural products and foodstuffs, (EU) No 251/2014 on the definition, description, presentation, labelling and the protection of geographical indications of aromatised wine products and (EU) No 228/2013 laying down specific measures for agriculture in the outermost regions of the Union<sup>2</sup> has established (in short) that:

- de-alcoholisation takes place after wine achieves the characteristics that make it a wine;
- pertained wine categories are still and sparkling wines;
- de-alcoholisation processes can be done through a) partial vacuum evaporation; b) membrane techniques; c) distillation;
- the labelling should report 'De-alcoholised [wine]' 'Partially de-alcoholised [wine]';
- partial de-alcoholisation applies to wines with and without PDO/PGI labelling, while total dealcoholisation applies only to wines without PDO/PGI labelling.

At the same time, the market request for de-alcoholised wines is increasing, also within the organic sector, while the European policy demands a reduction of alcohol consumption to reduce cancer risk and to foster a responsible alcohol use.

The German request is specifically asking for complete de-alcoholisation through the use of vacuum distillation, resulting in wines with up to 0.5 % vol.. For completeness and consistency, the expert group decided to consider in the preliminary phase all techniques for total and partial de-alcoholisation, but to express a recommendation only on total de-alcoholisation.

# Authorisation in general food processing

Partial vacuum distillation for the production of totally and partially de-alcoholised wines is authorized in EU since December 2021, in line with i.a. Section E of Part 1 of Annex VIII to Regulation (EU) No 1308/2013.

The technique is also used for other food products since decades e.g. for the production of plant extracts, beer de-alcoholisation, or production of fruit juice concentrate.

Vacuum distillation is generally allowed in conventional food processing outside the EU.

<sup>&</sup>lt;sup>2</sup>OJ L 435 from 6.12.2021, p. 262–314; ELI: <u>http://data.europa.eu/eli/reg/2021/2117/oj</u>

# Authorisation in general production and in organic production

Partial and total de-alcoholisation has been assessed also within OIV and Resolution OIV OENO 394A-2012 authorizes the processes that remove some or almost all of the ethanol from wines. The aim is to obtain wine products with a low (between 8.5 % to 0.5 % vol.) or no (inferior to 0.5 % vol.) alcohol content.

The authorised techniques are:

- -partial vacuum evaporation;
- -membrane techniques;
- -distillation.

The results can be achieved applying only one of the above listed techniques or a combination of them.

The European Union (EU) transposed the recommendations of that OIV Resolution into its body of legislation in 2021 via Regulation (EU) 2021/2117. In the EU, from 7 December 2021, the wine product category designation can be supplemented by the terms "de-alcoholised" or "partially de-alcoholised" for the following products categories: "wine", "sparkling wine", "quality sparkling wine", "quality aromatic sparkling wine", "aerated sparkling wine", "semi-sparkling wine" and "aerated semi-sparkling wine" (according to Introduction to Part II of Annex VII to Reg. EU 1308/2013). Complete de-alcoholisation is limited to products that do not have a protected designation of origin or protected geographical indication (PDO/PGI). Partial de-alcoholisation is allowed for all above-mentioned wine categories, whether or not they have a designation of origin or geographical indication. "De-alcoholised wines" have an alcohol content up to 0.5 % vol., while "partially de-alcoholised wines" have an alcohol content up to 0.5 % vol., while "partially de-alcoholised wines" have an alcohol content up to 0.5 % vol., while "partially de-alcoholised wines" have an alcohol content above 0.5 % vol. and below the minimum alcohol content corresponding to the wine product category. For instance, partially de-alcoholised still wines must contain more than 0.5 % vol. and less than 8.5 % vol. (if produced in the north of the EU) or less than 9 % vol. (if produced in the south of the EU).

OIV member countries are currently working on a framework defining specific oenological practices to be acceptable in the preparation of these new products (besides alcohol removal) such as the -recovery of aromas lost during the evaporation process, the addition of sugars produced from grape or glycerol, gums, preservatives to avoid refermentation in bottle or even the addition of the volume of water lost during the evaporation process.

Vacuum distillation was not forbidden by the organic regulation since the first Council Regulation (EEC) No 2092/91 for all food types, as it is a physical process and, as such, it was generally allowed. Nevertheless, at that time wine could not be labeled as organic and the result of wine de-alcoholisation could not be named "wine". The technology is used in the organic sector, for example in the production of organic fruit juice concentrates or in the de-alcoholisation of organic beer. In the case of concentrated fruit juices there are no viable alternatives due to the need to recover flavors.

For wine, point 3.2(d) of Part VI of Annex II to Regulation (EU) 2018/848 prohibits 'partial dealcoholisation of wine" in accordance with point 40 of Annex I A to Regulation (EC) No 606/2009. In 2013, this point 40 has been renamed as "correction of the alcohol content of wine" via Regulation (EU) No 144/2013 and consequently, the oenological practices prohibited for organic wine, in accordance with point 3.2(d) of Part VI of Annex II to Regulation (EU) 2018/848, is the correction of the alcohol content and not the partial de-alcoholisation of wine.

When the first EU regulation on organic wine making was drafted (ORWINE project) vacuum distillation has been considered not in line with organic principles due to high energy requirement and

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risk of impacting wine authenticity. In the same assessment process, Spinning Cone Column was not considered in line with the organic principles due to the impact on authenticity. In both cases the considered scope of use was wine-making and not wine de-alcoholisation, that was not at stake in that period.

Distillation (not vacuum) is allowed for the production of organic brandy, grappa and other spirits.

NOP does not limit the technology within organic wine production, so de-alcoholised organic wines are available in US market.

In Switzerland, the Swiss SR 910.181 EAER Ordinance of 22 September 1997 on Organic Farming is referring to the EU reg 2021/1165 and 2018/848

# Agronomic use, technological or physiological functionality for the intended use

Wine is the beverage resulting exclusively from the partial or complete alcoholic fermentation of fresh grapes, whether crushed or not, or of grape must. Its actual alcohol content shall not be less than 8.5% vol. (OIV definition).

The process leads to a quite complex composition, including molecules of extremely different size (see figure below).

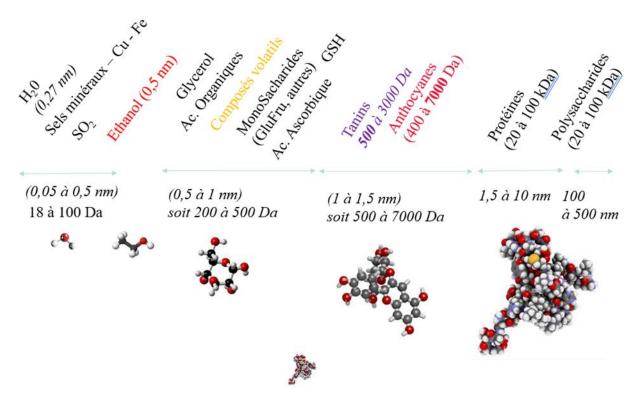


Figure: Remi Ghidossi Scientific Institute of Vine and Wine (ISVV)

The purpose of de-alcoholisation is to separate the ethanol from the rest of the wine components and to extract it. The difficulty is to separate elements that are close in size or other characteristics, like evaporation temperature, that is similar for ethanol, water, volatile compounds and glycerol.

The elements are separated by steps and then alcohol is extracted, using different techniques, in a permeate or distillate in which a large part of the molecules of interest are removed. In a second step, all components except alcohol, water and volatile compounds are reassembled into the wine. The quantity of aromas maintained in the wine depends on the final alcohol content: 0 alcohol means nearly no volatile compounds (aromas).

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The principle, therefore, is to use techniques that best allow elements of the wine to be separated upstream, and then to use techniques that allow the ethanol to be removed while limiting the loss of water, volatile compounds and other small molecules of interest.

To do so, different processes can be used. They are listed below.

# Vacuum Evaporation/ Low Temperature Distillation

The process extracts the alcohol from the beverage through distillation. The product to be de-alcoholised is heated and the alcohol, that is more volatile than water, is evaporated and gathered in liquid form in a condenser. The evaporation takes place under vacuum to lower the boiling temperature of the alcohol down to about 40°C while, instead of 78°C at atmospheric pressure. The aim is to reduce the loss of aromas. Once all the alcohol is evaporated and gathered in liquid form in the condenser, the de-alcoholised liquid is recovered by gravity. Technical solutions offer the possibility to recover the aromas in the extracted alcohol in order to reincorporate them into the de-alcoholised product. In the case of totally de-alcoholised wine the recovery of aromas is possible even if the alcohol content is only 0.5 % vol..

# Spinning Cone Column (SCC)

The "Spinning Cone Column" technology uses the principle of thin-layer vacuum evaporation created by the rotation of cones. The principle is the same as low temperature distillation with a heating of the product at around  $50^{\circ}$ C. The treatment is carried out in two steps: 1) to recover the aromas (about 3% of the volume) and 2) to de-alcoholise the wine. The aromatic fraction (alcoholic content around 60%) can thus be reincorporated into the wine. With this technique, it is possible to reach a alcohol content of 0.0 % vol.

# Additional elements on Vacuum Evaporation/ Low Temperature Distillation and Spinning Cone Column

- Low water consumption (often recycled), no oxygen intake and energy efficiency even if high energy requirements;
- reduced losses (minimal) especially thanks to the rectification of the alcohol and the recovery of the aromas and water;
- with SCC it is possible to de-alcoholise the product up to 0.02 % vol. In the case of partial dealcoholisation, for example a 2 % vol. adjustment, only 20 % of the wine could be processed, reducing the process time and energy consumption while protecting the quality features of the remaining 80% of the wine;
- partial de-alcoholisation of wine using SCC, up to 2 % vol. (wine correction), leads to minimal sensory differences and at 1 % vol. consumers are unable to detect differences (King et al. 2014);
- the alcohol removed is about 60 % vol., which makes it a quality wine distillate with high value on the market as it could be used in the agri-food industry or pharmaceutics;
- with SCC the separation of aromas and alcohol is done in 2 steps, which significantly increases the process time;

- in SCC, failure to rectify the alcohol results in losses of around 30 % of volume which contains significant amounts of water;
- SCC technology is expensive to buy and to maintain;
- SCC technology is not portable or mobile;
- nowadays other vacuum evaporative techniques that improve the performances of SCC are available. Specifically, less water losses and only one step are the most interesting improvements.

# **Reverse Osmosis**

The alcohol is separated from other components through membranes. The process consists of removing the solvents through a specific membrane under the action of pressure higher than the osmotic pressure of the wine. The process leads to two products: a) a mix of water and the largest wine molecules (tannins, proteins...); b) a mixture of water and alcohol with some other molecules such as organic acids or potassium (called permeate). Reverse osmosis alone does not reduce the alcohol content. In order to remove the alcohol from the permeate two processes may be used: membrane contactor or distillation.

**Membrane contactor**: it uses different types of hydrophobic membranes. The membranes separate two moving aqueous solutions: the feed solution and the stripping solution. In the case of the dealcoholisation, the feed solution is the wine, while the stripping solution is degassed water. During the process, the water circulating along one side of the membrane is progressively enriched in ethanol from the wine, which circulates along the opposite side. In lipophilic membranes there are micropores not wetted by water and containing gas. It is through this gas that the migration of volatile substances occurs according to the principle of osmotic distillation. The alcohol is recovered in the water (7 % to 9 % vol.) and then eliminated. The treatment is carried out continuously and cannot lead to a significant drop in the alcohol content. The process is conducted at room temperature and atmospheric pressure. This technique is among the most used for correcting the alcohol content of wines.

**Distillation**: it separates the alcohol from the wine by evaporation, it can be carried out continuously after reverse osmosis, if the volume of wine to be treated is large enough. But it is also technically possible to carry out the two operations separately, for example, with reverse osmosis treatment in the cellar and a permeate treatment in the distillery. With this technique it is possible to recover the ethanol at more than 90 % vol. (even 96 % vol.).

#### Additional elements on Reverse Osmosis (with or without distillation) and membrane contactor

- Membrane contactor technology is the less expensive, especially when it comes to reducing the alcohol content by 1 % vol. to 4 % vol.. It is the most widely used to adjust 1 % vol. to 2 % vol. alcohol in wine, as it is very efficient in terms of flow and volume;
- it is the less bulky technology (mainly in height), the equipment can be mobile;
- with membranes and distillation it is not possible to obtain a 0.5 % vol. wine;
- partial de-alcoholization using reverse osmosis does not strongly affect wine aroma and flavour (Pham et al. 2020).

# **Innovative techniques**

New techniques are under study. In particular, the improvement of membranes with the search for new materials with increased affinity for ethanol and not for other volatile compounds, the improvement of distillation techniques with the adaptation of the filling to reduce heating temperatures, the partitioning of evaporates or the coupling with a selective ethanol hydrophobic membrane. Nowadays, more effective evaporative techniques than the spinning cone column, such as GoLo<sup>3</sup> technology, are being used. They allow better rectification of alcohol and therefore lower volume losses. Finally, new emerging techniques such as  $CO_2$  stripping are studied.

These techniques also seek greater efficiency between the separation of alcohol and water since during de-alcoholisation part of the water from the wine is extracted, concentrating the rest of the components (acids, tannins, anthocyanins, etc.).

Nevertheless, to complete the process of wine de-alcoholisation and to maintain a quality profile, other steps are needed:

- reintroduction of water (partial or total);
- recovery of aromas;
- hot sterilized bottling.

Those steps are not mentioned in the dossier, so the group consider that there is no intention to use them, also considering that OIV evaluation is still pending.

As mentioned in "Authorisation in general production and in organic production", the regulation for the production of de-alcoholised wine is still debated at OIV level. The use of only some of the mentioned techniques, either vacuum distillation or membrane or distillation or a combination of them, to remove ethanol will not lead to a quality de-alcoholised wine. Nevertheless, there is market interest also for totally de-alcoholised wines obtained only by ethanol extraction, as they were already on the market with a different name/labelling. The lack of ethanol implies a sensory imbalance that can be corrected with additional processes such as recovery of aromas, and the use of inputs as sugars or glycerol or arabic gum. Currently some of these practices such as aroma recovery, aroma addition or glycerol addition are not authorized.

Moreover, other issues should be regulated, for example, the authorization of blending de-alcoholised wine with the original wine, as a method to obtain partially de-alcoholised wine. The issue is under consideration in OIV.

To be noted, though, that there is no automatic transposition of OIV recommendations into the EU legislation. Should the OIV find a consensus on the above-mentioned issues, the EU would need to consider whether to follow that consensus.

<sup>&</sup>lt;sup>3</sup> https://bevzero.com/equipment/dealctech/

# Necessity for intended use, known alternatives.

The group discussed the concept of system approach that characterizes organic production. Seen through these lens, agronomic alternatives are preferable in order to reduce the sugar content of the berries and thus obtain wines with a lower alcohol content, also considering that climate change is progressively increasing sugar content in berries and, as a consequence, alcohol content in wines.

This means to grow grapes with lower sugar content while maintaining the acidity, aromas and all features characterizing the wine type. It can be implemented through:

- appropriate choice of variety/clone, rootstock;
- soil management and fertilization practices;
- pruning and vegetation/production management;
- cultivation site choice;
- mixed forms of cultivation (i.e. agroforestry).

Another possibility which is currently under study is the use of selected yeasts, *Saccharomyces* and non-*Saccharomyces*, for the alcoholic fermentation of the grape must in order to reduce the ethanol production. However, this approach would only allow a small reduction in alcohol content, between 1 and 2 degrees.

Nevertheless, with no use of de-alcoholisation techniques no wines designated as 'de-alcoholised' can be produced.

To be considered: in any case, wines<sup>4</sup> (not designated as de-alcoholised) should have a minimum alcohol content of 8.5 or 9% vol. (still wines, and sparkling, quality sparkling and aerated sparkling wines). Only PDO/PGI wines, by derogation, can have a minimum alcohol content of 4.5% vol (EU Reg. 1308/2013, Annex VII, Part II, point (1)(b)).

Specifically, on de-alcoholisation techniques, the group discussed not only about the complete dealcoholisation but also about partial de-alcoholisation , where, at present, the alternatives are:

- (a) partial vacuum evaporation;
- (b) membrane techniques;
- (c) distillation

Nevertheless, the topic is in rapid evolution, as research as well as practical implementation of (single or combined) techniques are ongoing.

# Origin of raw materials, methods of manufacture

<sup>&</sup>lt;sup>4</sup> Part II of Annex VII to Regulation (EU) No 1308/2013 specifies different minimum levels of actual alcoholic strength per category of wine product as follows: category (1) = still: 8,5 % (wine-growing zones A and B), 9 % (other areas); categories (4) and (5) = sparkling and quality sparking: alcoholic strength not specified, thus implicitly identical to (1); category (6) = quality aromatic sparkling: 6 %; category (7) = aerated sparkling: alcoholic strength not specified, thus implicitly identical to (1); categories (8) and (9) = semi-sparkling and aerated semi-sparkling: 7 %.

Distillation is a physical process, vacuum distillation is done at lower pressure to reduce the temperature and the time needed.

Vacuum distillation system is a fixed installation and involves the use of heavy machinery requiring large space. They are not plants for individual wineries but, more often, for collective or contractor use. The use of the plant for conventional as well as organic wines will require specific procedures in the certification, in order to avoid cross-contamination from pesticides and other substances used in conventional wine.

# Environmental issues, use of resources, recycling.

De-alcoholization techniques such as vacuum distillation are characterized by a high energy consumption, although the process has a high energy efficiency. Due to its relatively high energy demand the environmental impact is one major parameter to be considered when evaluating the suitability of the techniques for organic wine production.

The Life cycle assessment (LCA) approach has been proven to be an effective tool to determine the environmental performance in the food and beverage sector in general, and in the viticulture and vinification sector specifically (Neto et al. 2013). Few studies exist dealing with an LCA approach concerning de-alcoholisation techniques in the wine sector. Margallo et al. (2015) found vacuum distillation by spinning cone column (SCC) to have the highest environmental burdens of the evaluated techniques concerning the consumption of energy, materials and water. Still the environmental impact of the process decreased substantially when taking into account the reuse of ethanol as by-product of the process. Aldaco et al. (2014) describe that valorization of ethanol after the vacuum distillation process by SCC decreases the environmental impact of the whole process compared to other dealcoholisation techniques, even if the de-alcoholisation process alone is more energy intensive compared to techniques such as evaporative pertraction and reverse osmosis. In another comparison of environmental impacts of different techniques for partial de-alcoholization of wines, SCC showed to have the second lowest environmental impact of the evaluated techniques (Paredes et al. 2023). There is a lack of publications comparing LCA-based environmental impacts between de-alcoholised and regular-strength wines (Anderson et al. 2021). This is why the evaluation of the environmental impact of the vacuum distillation process is hampered. It seems obvious that the valorization and reuse of ethanol (that has a high market value) as a by-product of the de-alcoholisation process, buffers the environmental impact of the technique caused by its high energy demand.

It is obvious that vacuum distillation needs an important energy consumption that must be taken into account at the moment of deciding whether this technique can be authorized in organic production. Nevertheless, it must also be considered that total de-alcoholisation leads to two final products: de-alcoholised wine and ethanol. Consequently, the total energy consumption must not only be attributed to the de-alcoholised wine but also to the produced ethanol. Considering this argument, the possible acceptance of vacuum distillation in organic wine production would be easier since the energy expenses attributable to de-alcoholised wine would be shared.

# Animal welfare issues

No specific concerns.

# Human health issues

# No specific concern.

In any case wine, as any alcohol containing drink, has to be consumed with moderation and awareness. Also partially de-alcoholised wines should be considered drinks with no healthy or nutritional purposes. As wine de-alcoholisation leads to high microbiological instability, the use of input like sorbate or DMDC (not authorize in organic production) or techniques (like flash pasteurisation or thermolysation) are often used. Nevertheless, for the organic production only authorized inputs and techniques are allowed.

#### Food quality and authenticity

Dealcoholized wines are an emerging trend in the wine market, due to health, religion, life-style, or fashion motivations.

Wine, especially in Europe, has a long-standing tradition and impact on landscapes and communities. Most of the "reputation" and the related market value of European wines at world level is linked to quality and authenticity. This is even more relevant in the case of organic wine, whose production is by far led by EU countries, even if the market is global.

As described above, de-alcoholised wine has been only recently regulated at EU level, while OIV discussion is still ongoing. As well at Member States level the discussion is still quite lively, with specific attention to avoid misleading the consumer. At the same time research and technical development are ongoing.

The de-alcoholisation process is impacting on the authenticity of organic wine and it can be risky for the trust of consumers towards organic products. The factors of the risk perception are related to the overprocessing needed to obtain a sufficient quality in organic de-alcoholised wine, to the high use of energy, to the industrialization of the process, to the distance from authenticity of wine as product of grape alcoholic fermentation.

# Traditional use and precedents in organic production

Distillation is a traditional process for spirits production, always allowed in organic, mainly on byproducts (i.e. wine making). Vacuum distillation is also used in organic processing for the production of de-alcoholised beer and other products like orange concentrated juice.

#### Other relevant issues

None.

# **Reflections and Conclusions**

The debate around wine de-alcoholization at OIV and global level is still on going. The discussion covers also the naming of obtained products, also considering the quite developed regulation on wine, quality wines (PDO/PGI) and their labelling as well as the sensitivity of the issue.

At the same time, research and innovation are working on fine-tuning the techniques, especially to maintain the quality profile of de-alcoholised wines. The preservation of aromas is a key point of this process to keep a good quality level and also the application of other practices to de-alcoholised wines in order to improve the sensory profile and preserve the characteristics of the original wine.

Especially for the organic sector, at agronomic level, there is an intensive search for methods to limit sugar content in grapes and, at wine-making level, research and innovation is into place to contribute to mitigating alcohol production through alcoholic fermentation choices.

Nevertheless, it should be considered that agronomic and wine-making innovations can lead to lower alcohol content but not to 0 alcohol wines (in order to be labelled as totally de-alcoholised wine). Nowadays total dealcoholized wine can only be made by removing the ethanol with allowed technics.

Another relevant point to be considered is the production of "organic 0 alcohol drinks" based on grape and also on wine might be produced as far as it does not correspond to a de-alcoholised wine and that the labelling is not misleading (to be evaluated by MSs). It is also possible to obtain "alcohol free drinks" produced by mixing ingredients coming from wine, but they will not be named "wine".

Another relevant point to be considered is potential (allowed) option of producing organic alcohol free drinks based on grape juice and produced by mixing ingredients also coming from wine and other ingredients.

Considering the initial request (totally de-alcoholised production) and the fact that on partially dealcoholised wines the definition of the process is still subject of evolutions and debates, the group decided to restrict, for the time being, the recommendations to totally de-alcoholised wine production. For the purpose of obtaining the product defined by OIV and EU as "Totally dealcoholized wine" a technique to remove the ethanol is needed and the use of vacuum evaporative techniques, respecting the temperature (75°C) and filtration (pores size) limitations already into force for organic wine-making, is in line with the principles of organic production.

# **Recommendations**

The Group recommends to amend Part VI of Annex II point 3.3 of Regulation (EU) 2018/848, listing vacuum evaporative techniques among permitted practices, exclusively for the production of totally dealcoholised wines, providing the limitations in terms of temperature (75°C) and filtration pores (not smaller than 0.2 micrometres) are fulfilled.

The Group does not express any recommendation concerning partial de-alcoholisation and highlights the need for future assessment when complementary processes and additions will be allowed in conventional de-alcoholised wine production (i.e. the addition of exogenous aromas and water or the use of glycerol).

The groups also recommends:

- to promote a thorough review of the organic processing principles as there is the need to include environmental sustainability elements, circular economy needs and a general harmonization between the approach in organic wine-making and in the processing of other organic foods and feeds;
- to invest in agronomic and wine-making research to mitigate climate change impact on alcohol content of wines. This impact of climate change is particularly severe in Southern countries, that have a historical and traditional viticulture .

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# 5. MINORITY OPINION

None.