ARE OFFICIAL CERTIFICATIONS A RELEVANT ASPECT IN THE CONSUMPTION OF NATURAL WINES? A PROSPECTIVE STUDY AMONG SPANISH PRODUCERS/CONSUMERS

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ABSTRACT
PURPOSE: Spain is leader in the world ranking of surface vineyards of ecological production, with almost 27% of world production. Consumers are demanding for more information about these sustainable practices and the official certificates can be a good option to help them. In the case of natural wines, four certifications can be used in the packaging of wines to inform consumers that they are acquiring natural wine: i) certified organic winery by the EU; ii) certified biodynamic winery by Demeter; iii) certified organic (EU) and biodynamic (Demeter) winery; iv) certified by the National Institute of Origins and Quality (INAO) as ‘vin méthode nature’ (natural method wine) with two logos (natural method without added sulphites and natural method with less than 30 mg/l added sulphites). To obtain the results we have conducted a pilot study with a sample of 358 Spanish consumers of wine divided by experts and non-experts. RESULTS: The results have confirmed there is a tendency in food-related on labelling in recent years to be focused on sustainability labelling and certification. CONCLUSIONS AND IMPLICATIONS: The research has given us an idea about the importance of sustainability for consumers of natural wine and if an official certificate is a necessary question for them in the decision-making process. Thus, labelling certifications may increase the information for the consumers and could also be an opportunity to generate an increased level of credibility in natural wines, "the great unknown".

Key words: Natural wines, sustainability, Spain, EU certification, Demeter, biodynamic, natural method wine

INTRODUCTION
In 1987, United Nations gave an accepted definition about sustainable development as the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (1).

It has been used the concept of sustainability applied to viticulture and wine production, taking the definitions of two of the most important Wine

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industry to take care the land where the wine industry works and, if it is possible, they may leave it in better conditions than before (4).

There is a misunderstanding about the meaning of the concepts organic, natural or biodynamic, in a period where consumers require to make wine-growing more sustainable. So, the great interest in sustainable agriculture methods is increasing in spite of the confusion between those three terms (5, 6), which are not synonyms like some customers think, in fact, they are quite different.

### Table 1. Differences between natural, organic and biodynamic wines

|                  | Natural wine | Organic wine | Biodynamic wine |
|------------------|--------------|--------------|-----------------|
| **Definition**   | Winery: wine from certified organic or biodynamic grapes and without any treatment or the use of any additive or coadjuvants. Grape: certified organic or minimal biodynamic. | Winery: wine from certified organic grapes according to regulations and produced according to regulations and permits coadjuvants. Grape: from a certificate according to regulations. | Winery: Production according to holistic methods and with authorized additives and adjuvants. Grape: from an organic certified vineyard following the holistic methodology. |
| **Fundamental principles** | Nothing added, nothing taken away. | Purity of product using non-synthesized ingredients. | Holistic agricultural health. |
| **Grapes**       | Made with 100% organically grown grapes | With the lowest level of sulphites possible to prevent spoilage and bacterial contamination. | Organic and holistic grapes |
| **Regulation**   | Not strict | Certificated | Certificated |
| **Sulphites**    | Contains no more than, 10 mg/l total sulphur if red, 25 mg/l total sulphur if white | Contains Sulphites (30 mg/L less of total sulfites than conventional wine) | Contains Sulphites (the average of the last vintage of total sulphur in biodynamic wines) |
| **Fertilisers organic** | Avoided | Avoided | Avoided |

Source: Own elaboration

There is no official definition for natural wine. In this article it has considered the explanation of Isabel Legeron, considered an influencer an expert in natural wines. She understands that “natural wine is farmed organically (biodynamically, using permaculture or the like) and made (or rather transformed) without adding or removing anything in the cellar. No additives or processing aids are used, and ‘intervention’ in the naturally occurring fermentation process is kept to a minimum. As such neither fining nor (tight) filtration are used. The result is a living wine – wholesome and full of naturally occurring microbiology” (7).

In the wine world, natural wine accounts a very small proportion in its market. Some experts, like Malgorzata Pink, noted that there is an ‘organic wine boom’ and it continues unabated, and, together with natural and ecological trends in consumption and behaviour, cannot be seen to be just a short-term fashion, but rather a new attitude to market realities” (8). Furthermore, natural winemaking is an important issue within the European Union (EU). In its conclusions, Pink confirmed that “sustainable wine market in EU is growing despite rather negative changes observed on the conventional wine market. The
A growing segment of consumers of organic wines is proof of a heightened awareness of the issue of sustainable consumption and the importance of ‘consuming consciously’. Natural winemaking is often based on trust, with biodynamic producers creating real social networks to support and observe each other’s methods and ensure proper quality of the final product” (8).

In the wine production industry, there are several competing eco-labels related to eco-certification, including organic certification and biodynamic certification (9). Specific logo or seal, sometimes help consumers in identifying sustainable products. **Table 1** shows the three logos/seals established by organic rules and regulations used in Spain and analyzed in this communication, but a lot of private standards and logos can also be found on food packages.

**Table 2. Certification for natural wineries in Spain**

| Certificate | Certified organic winery by the EU | Certified biodynamic winery by Demeter | Certified organic (EU) and biodynamic (Demeter) winery | Certified by “Vin méthode nature” |
|-------------|----------------------------------|----------------------------------------|--------------------------------------------------------|---------------------------------|
| Logo        | ![ECO logo](image)               | ![Demeter logo](image)               | ![EU logo](image)                                     | ![Vin méthode nature](image)     |

Source: Own elaboration

The first logo analysed is the EU organic logo. As shown in the European Commission “the organic logo gives a coherent visual identity to EU produced organic products sold in the EU. This makes it easier for EU based consumers to identify organic products and helps farmers to market them across all EU countries. The organic logo can only be used on products that have been certified as organic by an authorised control agency or body. This means that they have fulfilled strict conditions on how they are produced, transported and stored” (10).

Next, the registered trademark Demeter. Its logo indicates biodynamic production. According to Demeter information, “its use is permitted only for authorized licensees according to the National or International Demeter Labelling Standard”. Their manual “is intended to complement the labelling section of the International Demeter Biodynamic Standard”. In order to use the Demeter logo and branding, the biodynamic producers have a detailed guideline in the International Certification Office (11).

The last certification analysed is the first one that confirms the existence of the “natural method wine” (vin méthode nature) recognized by the French Ministry of Agriculture with the INAO and the French Fraud Control Office. They have created a Union in September 2019 to confirm that natural method wine exists. Two labels are permitted, one “without sulphites added” and the other one “≤30mg/L sulphites” (adjustment by adding sulphite at the start (but less than 30mg/L total). (Table 2).

**MATERIALS AND METHODS**

To respond to the purposes of the research, a self-report study was carried out with a sample of 358 Spanish consumers of wine. Regarding the socio-demographic characteristics of the respondents, the sample consisted of 200 women (44.1%) and 158 men (55.9%), with ages between 20 and 79 years, the average being 43.26 years (DT = ...)
To ensure that all participants had sufficient prior experience in consuming wine, those who reported never consuming this type of product were excluded.

The data collection for the study was focused on the administration of a questionnaire to the selected sample, which was constructed for the purposes of the research. Participants were presented with the following statement: *Comparing the four options above, rank them according to their usefulness to identify a natural wine.* Next, a list of four options: 1st most useful; 2nd most useful; 3rd most useful; least useful. **Table 3** presents the valid percentage of all the useful and non useful options.

**Table 3. Valid percentages about useful and non useful certification in general**

| USEFUL                        | Certified organic winery by the EU | Certified biodynamic winery by Demeter | Certified organic (EU) and biodynamic (Demeter) winery | Certified by “Vin méthode nature” |
|-------------------------------|-----------------------------------|---------------------------------------|--------------------------------------------------------|----------------------------------|
| 1st most useful               | 35.4                              | 5.3                                   | 37.2                                                   | 24.3                             |
| 2nd most useful               | 29.6                              | 24.8                                  | 35.0                                                   | 11.1                             |
| 3rd most useful               | 19.9                              | 46.0                                  | 20.4                                                   | 10.6                             |
| Least useful                  | 15.0                              | 23.9                                  | 7.5                                                    | 54.0                             |

**RESULTS**

There is a tendency in food-related research on labelling in recent years to be focused on sustainability labelling and certification (12). Environmental sustainability is a credence attribute since consumers cannot determine by themselves if a wine has been produced using environmentally sustainable practices. Instead, they have to rely on the information provided by producers or other organizations (13, 14).

This study reveals the preference of consumers about the best certification for natural wine and confirms whether consumers prefer the well known certified organic (EU) or Demeter, or they prefer the new one created for natural wines, certified by “vin méthode nature”. The table shows that the majority prefers natural wine certified organic by European Unions and biodynamic (Demeter) winery followed by the certified organic winery by the EU. The third option is certified biodynamic winery by Demeter and the less useful option, certified by “vin méthode nature”.

We divided the sample by experts and non-experts and the results do not vary from the overall sample, in fact they are the same. For experts and non-experts, the most useful option is certified organic winery by the European Union and the mix with biodynamic (Demeter) winery, and the least useful one is certified by “vin méthode nature”.

There is a discrepancy between vigneron, who understand natural method wine as a style of live and other people that see this method as a marketing opportunity. In any case, France cast the first stone (13) and before the European regulation for wine labelling (Regulation EU No. 1308/2013), “established detailed conditions for the use of compulsory labelling particulars such, among others, the actual alcoholic strength, provenance, bottler, producer or importer and voluntary labelling particulars such as the indication of the vintage year, wine grape variety or certain production methods” (15).
Table 4. Preferences in certification for experts and non experts in percentages

| USEFUL | Certified organic winery by the EU | Certified biodynamic winery by Demeter | Certified organic (EU) and biodynamic (Demeter) winery | Certified by “Vin méthode nature” |
|--------|-----------------------------------|--------------------------------------|------------------------------------------------------|---------------------------------|
|        | with knowledge                     | with knowledge                        | with knowledge                                        | with knowledge                  |
|        | consumers                           | consumers                            | consumers                                            | consumers                       |
| 1st most useful | 40,3                               | 7,5                                  | 23,9                                                | 28,4                            |
|        | 34,5                               | 4,2                                  |                                                     | 43,7                            |
| 2nd most useful | 22,4                               | 19,4                                 | 46,3                                                | 11,9                            |
|        | 31,0                               | 28,2                                 |                                                     | 31,7                            |
| 3rd most useful | 14,9                               | 50,7                                 | 22,4                                                | 7,5                             |
|        | 24,6                               | 43,7                                 |                                                     | 18,3                            |
| Least useful | 22,4                               | 22,4                                 | 7,5                                                 | 52,2                            |
|        | 9,9                                | 23,9                                 | 6,3                                                 | 54,9                            |

CONCLUSIONS
Labelling supports consumers to make their own decisions about the best sustainable products. There are no previous studies about the preference of natural wines certificates. The study confirms that the organic European Union logo and the biodynamic Demeter one are really known and respected by the wine consumers, nevertheless if they are experts or not, meanwhile, the new French logo is the least useful. Is it because “vin méthode nature” is new? Would the same results if the French logo was together with the UE or Demeter logo? A new study would be necessary to resolve these questions with a bigger sample.

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