

Results of the ORWINE EU Project – scientific background for the new rules of the European Commission for organic wine

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Abstract

Within the European Union-funded research project ORWINE (Organic viticulture and wine-making) proposals were elaborated for the European Commission for the new planned rules for organic wine. The main issues in wine processing were: the reduction of sulfites (with different scenarios), the allowed additives and processing aids, enrichment (sugar) and labelling issues.

Introduction

Since two decades, the organic wine sector has been growing continuously (Richter and Padel, 2007). But until 2009 there was no common legislative framework for organic wine processing in the European Union except for fruit wines, although many private standards have already standards for organic wine. This will change as in June 2009 the EU Commission has started to draft the first proposal for a implementing rules for organic wine under the EC Council Regulation 834/2007 and integrated in the EC Commission Regulation 889/2008. These rules should be decided until the end of 2009. Thus, the EU-funded project EU-ORWINE (Organic viticulture and wine-making) was launched in 2006 and ended in April 2009, which was aimed at developing a scientifically based legislative framework as well as a Code of Practise for organic wine processing in the EU. Partners were wine institutes, research institutions, producer organisations as well as IFOAM EU as umbrella organisation for the organic sector.

Materials and methods

Within the project experimental testing in wine institutes, on-farm testing, consumer and market studies, technical fact sheets, environmental assessment tool as well as stakeholder and producer consultations were made. In this paper the main focus is on the results relevant for drafting the new rules for organic wine and on the key issues of the future regulation: processing techniques, additives and processing aids, labelling and enrichment.

Results and discussion

Development of the organic wine production

In 2006, starting date of the project the vineyard surface under organic management in main EU wine producing countries was: Italy 34'000 ha, France 19'000 ha, Spain 16'000 ha, Germany 2800 ha, Austria 2500 ha (Richter and Padel 2007). The market for organic wine producers is clearly different: high importance of export for the first three and mainly domestic market for Germany and Austria. Nowadays all countries have increased their organic vineyard surface and some Central European countries started to have significant areas of organic grape production.

Consumer perception and image of organic wine

The ORWINE qualitative consumer study (Stoll and Schmid 2007) showed many participants perceive that organic wine is healthier than conventional wine, mainly due to the absence of chemical pesticides and additives in the vineyard and in winemaking. Generally the image is positive, but there are in some countries also negative perceptions regarding taste, even if they

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were not confirmed by blind testing. However a rising number of organic wines have been successful in wine competitions.

What is organic wine?

ORWINE proposed the following definition: organic wine is good wine that maintains the characteristics of the grape and of the specific place and farming system where it comes from and without the use of additives, processing aids and techniques that may have a negative impact on human health (producer and consumer), on environment on the integrity of the product. Some essential (to quality) additives of non-natural origin may be used but in limited amounts and exclusively in case of real need.

Where and what to regulate?

The European Commission has in June 2009 decided based on ORWINE recommendations that the new rules for wine will consist of positive list for additives and processing aids and possibly a negative list of not acceptable techniques. The main crucial issue for debate is the maximum sulphite content in organic wines.

ORWINE recommendations for the new rules

List of **enrichment techniques** allowed by Reg. (CE) 479/2008 which have received negative evaluations: reversal osmosis of musts, evaporation of musts, cryo-concentration of musts and wines. List of techniques not allowed by Reg. (CE) 479/2008 which have received general negative evaluations: exchanging resins on musts and wines (except for concentrated must rectification), wine separation techniques (spinning cone, reversal osmosis on wine, distillation, etc.), ultra and nano-filtration of wines.

The majority of **additives and processing aids** (partially already allowed for organic processing) are considered acceptable in organic wine making. Another group of substances are unanimously considered not in tune with the organic concept, such as potassium ferrocyanide, DMDC and PVPP. A third category of compounds there are controversial opinions due to their allergenic potential or as negatively perceived by consumers or potentially problematic in technical terms as they may increase sulphite in wine. For this last group restriction can be considered.

Scientific research on **SO₂ reduction** demonstrates that, so far, it is not possible to produce “good” organic wine without any addition of sulphites in a significant range of areas, wine types and years. Consumers demanded SO₂ reduction, considering it an additive with negative effects on health. A majority of producers supported a reduction of its use in organic wines. Scientific research and application in several pilot farms in different wine production areas demonstrated that for several wine types and areas it is technically possible to reduce SO₂ levels. As proved on several pilot farms and stated elsewhere, a large majority of organic wines already have SO₂ rates much lower than CMO limits.

Producers' opinions on the proposed scenarios are reported below.

Scenario 1: in many countries a small group of producers (<10%) is in favour of a complete prohibition of SO₂.

Scenario 2: the majority of German producers and a consistent group of Austrian producers oppose SO₂ limits stricter than CMO limits. In other countries this scenario gets the consensus of around 10% of producers.

Scenario 3: The majority of producers in Italy and Spain is in favour of this approach and proposes reductions higher than 50% compared with present CMO. In France and Switzerland the majority of producers is in favour of a reduction of 20%-30% less than that for conventional wines. In the first draft a 50% reduction was proposed by the EU.

If a country (one or more regions) is confronted with catastrophic or extreme weather conditions in a year, the option for an exceptional derogation under the current CMO system and/or under the derogation system of the new Council (EC) Regulation 834/2007 should be foreseen. These cases should be very limited and should follow a given procedure. Furthermore ORWINE recommended that special wines should be excluded from any SO₂ limitations beyond the limits of the Common Wine Market rules.

Enrichment has to be accomplished with organic ingredients. In general, concentration techniques (reversal osmosis, evaporation, cryo-concentration) received a negative evaluation. The technique of ion-exchange resins should be allowed in the making of concentrated rectified musts in order to avoid unfair conditions among producers. The principle and the level of limitation is largely supported but Southern European countries and mainly rejected by Northern European countries.

Recommendations

It would be desirable that the Standing Committee for organic farming of the EU Commission will consider the ORWINE recommendations in the new rules for organic wine, to be decided in December 2009. Furthermore a Code of Practise for best organic wine making will be a complementary tool to the new EU rules.

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