

Soil Association organic standards for wine

Second consultation

Introduction

The Processing Standards Committee has considered feedback to the first consultation and is launching this second round with a draft standard for consideration.

The content of the new organic wine regulation (EC 203/2012) is supported by a three year EU research project: *'Organic viticulture and wine-making: development of environment and consumer friendly technologies for organic wine quality improvement and scientifically based legislative framework'* known as the ORWINE project (www.orwine.org). The recommendations from ORWINE form the basis of the new Regulation.

The Regulation comes into force on 1st August 2012. In order to publish Soil Association standards in time for this deadline, we are following the timetable below:

9th March – 8th May 2012	First consultation period on the regulatory wording
23 rd May 2012	Processing Standards Committee discuss consultation feedback & set terms for second consultation
6th June – 14th June 2012	Second consultation period on the draft standard.
15th June 2012	Processing Standards Committee to discuss feedback and agree draft for Standards Board.
20 th June 2012	Standards Board agree recommendation for Council.
19 th July 2012	Council
27 th July 2012	Soil Association wine standards published.

This draft Soil Association standard reflects the EU organic wine Regulation EC 203/2012 except for the specification of maximum 'free' sulphur dioxide levels.

The particular differences between current Soil Association standards for wine and this draft we would draw your attention to are:

1. **New sulphur dioxide limits**, allowing higher levels than current Soil Association standards, yet retaining the maximum levels of 'free' sulphur dioxide
2. **New products and substances**, adding 12 specific to wine making.
3. **New processes**, which will be allowed only with permission.

1.0 New sulphur dioxide limits

The proposal here is to adopt the sulphur dioxide levels of the new organic wine Regulation 203/2012, additionally specifying maximum levels of free sulphur dioxide in the wine at bottling which we outline currently in Soil Association standards:

Type of wine	Proposed Soil Association SO ₂ levels SO ₂ mg/l (free SO ₂)	Current Soil Association standards SO ₂ mg/l (free SO ₂)	Organic wine Regulation 203/2012 SO ₂ mg/l	Non-organic wine Regulation 606/2009 SO ₂ mg/l
Red	100 (25) <i>Wines with a residual sugar level < 2 grams per litre</i>	90 (25)	100 <i>Wines with a residual sugar level < 2 grams per litre</i>	150
White & rosé	150 (30) <i>Wines with a residual sugar level < 2 grams per litre</i>	100 (30)	150 <i>Wines with a residual sugar level < 2 grams per litre</i>	200
Sparkling <i>(for all categories of quality sparkling wine)</i>	155 (10)	100 (10)	155	185
Sparkling <i>(for other sparkling wines)</i>	205 (10)	100 (10)	205	235
Dessert	Wine with sugar level of ≥5g/l: 170mg/l (70) red 220mg/l (70) white & rosé 270-370mg/l (70) other wines	250 (70)	Wine with sugar level of ≥5g/l: 170mg/l 220mg/l 270-370mg/l	Wine with sugar level of ≥5g/l: 200mg/l red wine 250mg/l white & rosé 300-400mg/l other
Bag in box	Delete category	155 (55)	<i>Not specified in EU Regulation</i>	<i>Not specified in EU Regulation</i>

All wine naturally contains sulphur dioxide at low levels, as a natural bi-product of fermentation. However sulphur dioxide is also added to wine to inhibit or destroy bacteria and unwanted yeasts and to protect from oxidation.

Sulphur dioxide is an allergen and under EU law has to be labelled if present above levels of 10mg/l. This means that labels for most wines include wording such as 'CONTAINS SULPHITES'. However this indicates only that sulphites are present at 10mg/l or more, not what the exact sulphite level is.

Sulphur dioxide is present in wine in 'free' and 'bound' forms, making up the 'total' SO₂ levels. When it is added to wine (as E220 sulphur dioxide or E224 potassium metabisulphite) free SO₂ reacts with oxygen molecules or other compounds to become bound. In order to prevent oxidation of the wine in the bottle, wine makers add enough sulphur dioxide so that some remains 'free' to

protect the wine from spoilage in the bottle. It is the 'free' SO₂ that causes allergic reactions in people with a sensitivity to sulphur dioxide, especially affecting people with asthma. Retaining within the standard the maximum levels of free SO₂ is therefore desirable.

2.0 New products and substances

The proposal in this second round of consultation is to allow the following additional substances for wine making allowed in the new organic wine regulation.

1. **Di-ammonium phosphate** Used as a nutrient (nitrogen) source for yeast. Can help accelerate fermentation or to help a fermentation that is 'stuck'. It improves the behaviour of alcoholic fermentation. Can contribute to lower the total SO₂ content. Di-ammonium phosphate is accepted and used by organic-wine producers.
2. **Thiamine hydrochloride** (vitamin B1) Found naturally in the grapes and accumulated in the pulp, thiamine is also produced by a synthetic process. Thiamine is a fundamental vitamin for the fermenting yeasts, because it is a co-factor for different enzymes. Used as a nutrient source for yeast to help finish fermentation (added to the wine as a source of nitrogen). Its addition is useful to reduce the concentration of some SO₂-binding compounds, increasing the ratio between free and total SO₂. Mainly well accepted by a majority of wine producers.
3. **Copper sulphate and cupric citrate** A natural mineral which is subject to a purification process. Used to remove sulphur aromas from wine for which there is no alternative. The colloidal cupric precipitate which is formed must be eliminated from the wine. After treatment the copper content of the wine should be checked as the residual copper content must not be more than 1mg/l. Its place in the organic wine regulation is to be reviewed by 31 July 2015.
4. **Potassium bisulphite** This substance is obtained by passing a current sulphur dioxide through an aqueous potassium hydroxide solution. Potassium bisulphite creates sulphur dioxide when added to wine or must which prevents growth of microorganisms and acts as an antioxidant preserving the colour and aromas in the wine. Soil Association standards already allow potassium metabisulphite.
5. **Plant proteins from wheat or peas** Used as a protein fining agent for removing phenolic compounds from wine.
6. **Potassium caseinate** A commonly used fining agent in wine. It is normally available as a potassium salt. After treatment no casein should remain in the wine.
7. **Tannins** Widely known and comprises relatively simple substances. Usually sourced from oak or chestnuts, this is used to aid clarification and improve the 'mouth feel' of the wine. The addition of tannins is not a common practice. It can be reserved to certain vintages for red musts rich in proteins, so long as these proteins don't precipitate the natural tannins, which would mean a loss of quality. Under organic aspects, it would be preferable to use tannins from grape seeds and adapted maceration methods.
8. **Pectolytic enzymes** Assist in the hydrolisation/breakdown of pectin into pectic acid and methanol during fermentation which clarifies the wine.

9. **Aleppo pine resin** Used by Greek producers to make Retsina.
10. **Meta-tartaric acid** Used to inhibit the precipitation of tartrate salts, but not recommended for use in wine that will be stored for longer than a year (it can produce 'off' aromas after time). Maximum level of use of 100 mg/l.
11. **Oak chips** Commonly used to give an oak flavour to wine.
12. **Potassium alginate** Used as a clarifier for sparkling wines that go through a second fermentation in the bottle. This is in common use in champagne and sparkling wines.

All substances for organic production and processing must be GMO free.

3.0 New processes

The proposal here is to allow 'with permission' the following four processes.

1. Centrifuging and filtration, with or without an inert filtering agent (pore size no smaller than 0.2 micrometre). This is used to remove yeast from wine before fermentation has finished.
2. The use of heat treatments, (to extract colour from wine), but only up to 70°C.
3. Reverse osmosis (used to reduce alcohol levels).
4. The use of ion exchange resins (to prevent tartrate-based sedimentation in wines).

The standard will disallow the following practices identified in the organic wine Regulation:

- ✘ partial concentration by cooling;
- ✘ partial dealcoholisation;
- ✘ elimination of sulphur dioxide by physical processes;
- ✘ electro dialysis treatment; and
- ✘ the use of cation exchangers.

Soil Association organic standards

Chapter 44 Wine

Standards you must read with this chapter:

Chapter 1: The principles of organic production and processing

Chapter 2: The certification process

Chapter 3: Farming and growing

Chapter 4: Crop and land management

Chapter 5: Arable and horticultural cropping

Chapter 40: Processes in the chain between farm and consumer

Chapter 41: Manufacturing

Except where explicitly stated in this chapter you must comply with:

- EC Regulation 606/2009 (rules for implementing Council Regulation (EC) No 479/2008 for the categories of grapevine products, oenological practices and the applicable restrictions) and
- EC Regulation 607/2009 (rules for implementing Council Regulation (EC) No 479/2008 for protected designations of origin and geographical indications, traditional terms, labelling and presentation of certain wine sector products).

Wine

44.1.1

Organic wine is as natural as possible made using organically grown grapes or other fruit from a vineyard or farm that supports biodiversity and enhances soil health.

44.1.2

Organic wine makers use the minimum amount of additives and processing aids required to produce an optimum quality wine.

44.1.3

The material that you use to make organic wine (e.g. grapes, berries) must be organically grown.

44.1.4

You may use the following additives and processing aids:

Product/substance	Oenological practice	Specific condition/Regulation reference
Air Gaseous oxygen	For aeration or oxygenation	
Perlite Cellulose Diatomaceous earth	Centrifuging & filtration	To use only as inert filtering agents. Use must not leave undesirable residues in the treated product.
Nitrogen Carbon dioxide Argon	To create an inert atmosphere and to handle the product shielded from the air	
Yeasts	For wine production, dry or in wine suspension	Individual strains organically sourced if available. Only with fresh grapes, grape must, partially fermented grape must (& that obtained from raisined grapes), concentrated grape must and new wine still in fermentation and for the second alcoholic fermentation of all categories of sparkling wine
Diammonium phosphate Thiamine hydrochloride	To encourage yeast development	Individual strains organically sourced if available. Only with fresh grapes, grape must, partially fermented grape must (& that obtained from raisined grapes), concentrated grape must and new wine still in fermentation and for the second alcoholic fermentation of all categories of sparkling wine
Sulphur dioxide Potassium bisulphite or potassium metabisulphite	Use	Maximum levels in wine placed on the market: See standard 44.1.5 below
Charcoal for oenological use	Use	No more than 100g of dry product per hl. Only for musts and new wines still in fermentation, rectified concentrated grape must and white wines.
Edible gelatine	Clarification	Organically sourced if available.

Plant proteins from wheat or peas		
Isinglass		
Egg white albumin		
Tannins		
Lactic acid	Acidification	
L(+)-Tartaric acid	Acidification and deacidification	Only for products from the Elbling and Reisling grape varieties. Please refer to EC Regulation 606/2009 Appendix 2, Annex IB.
Calcium carbonate	Deacidification	Conditions and limits laid down in points C and D of Annex V to EC Regulation 479/2008 & Articles 11 and 13 of EC Regulation 606/2009
Neutral potassium tartrate		
Potassium bicarbonate		
Aleppo pine resin	Addition	
Lactic bacteria	Use	
L ascorbic acid	Addition	
Nitrogen	Bubbling	
Carbon dioxide	Addition	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 7 and 9 of Annex IV of Regulation EC 479/2008. For still wines max 3g/l; excess pressure <1 bar at 20°C
Citric acid	Wine stabilisation	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 16 of Annex IV of Regulation EC 479/2008. Max content 1g/l.
Tannins	Addition	Organically sourced if available.
Meta-tartaric acid	Addition	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15, 16 of Annex IV of Regulation EC 479/2008. No more than 100mg/l.
Acacia gum (gum Arabic)	Use	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15, 16 of Annex IV of Regulation EC 479/2008. No more than 100mg/l.
Potassium bitartrate	To assist the precipitation of tartaric salts	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15, 16 of Annex IV of Regulation EC 479/2008. No more than 100mg/l.
Copper sulphate	To eliminate defects of taste or smell in the wine	For partially fermented must for direct human consumption as such and the products defined in paragraphs 1, 3, 4, 5, 6, 7, 8, 9, 15, 16 of Annex IV of Regulation EC 479/2008. No more than 1g/hl provided that the copper content of
Cupric citrate		

Oak chips	Use	the product so treated does not exceed 1mg/l. In winemaking and ageing, including in the fermentation of fresh grapes and grape must.
Potassium alginate	Use	Only for the manufacture of all categories of sparkling and semi-sparkling wines obtained by fermentation in bottle and with the lees separated by disgorging.
Calcium sulphate	Treatment	Only for Spanish wines 'vino generoso' or 'vino generoso de licor' see Annex III of Regulation EC 606/2009

44.1.5

Wine must **not** exceed the following sulphur dioxide levels:

Type of wine	Maximum sulphur dioxide (SO ₂) levels SO ₂ mg/l (free SO ₂)
Red	100 (25) <i>Wines with a residual sugar level < 2 grams per litre</i>
White & rosé	150 (30) <i>Wines with a residual sugar level < 2 grams per litre</i>
Sparkling (for all categories of quality sparkling wine)	155 (10)
Sparkling (for other sparkling wines)	205 (10)
Dessert	Wine with sugar level of ≥5g/l: 170 (70) red 220 (70) white & rosé 270-370 (70) other wines

44.1.6

You may, with our permission, use:

- centrifuging and filtration (with or without an inert filtering agent) but only with a pore size ≥0.2 µm
- heat treatments, but only up to 70°C
- reverse osmosis
- ion exchange resins.

Note – the use of heat treatments, reverse osmosis and ion exchange resins may be phased out or restricted by August 2015.

44.1.7

You must **not** use the following practices:

- partial concentration by cooling
- partial dealcoholisation of wine
- elimination of sulphur dioxide by physical processes
- electro dialysis treatment or treatment with cation exchangers to ensure the tartaric stabilisation of the wine.