Sustainability Statement (ESG)

Wines Unlimited - Salburg Wijnimport

Note : Wines Unlimited is only involved in marketing Organic and Sustainable wines from Europe, because of the carbon footprint of global transport... Therefore I will not go into trends outside the E.U.

ESG stands for : Environmental, Social en Governance (Milieu, Maatschappij en Bestuur)
The environmental criteria assess how a company contributes to and performs on environmental challenges (eg waste, pollution, greenhouse gases, deforestation and climate change). The social criteria look at how a company treats its people (e.g. human capital management, diversity and equal opportunities, working conditions, health and safety and misrepresentation) and the Governance criteria examine how a company is managed (e.g. remuneration of executives, tax practices and strategy, corruption and bribery, and broad diversity and structure).

The ESG of Wines Unlimited is focused on the sale of sustainable wine, adherence to and conform to legislation. Not only as a Registered Wine Trader of the KVNW (Royal Association of Dutch Wine traders), but also collaborations with sustainable companies, planting forests through Trees for All, Wine in Moderation, Project Pura & The Good Roll.

The Impact of Wine Industry on the Environment
Our planet isn't getting any bigger, but our population is. And the way in which we use the land is changing too, and not for the better. In order to feed and water our constantly expanding race, we have had to go hard at the earth, spraying chemicals and pesticides, intensively using herbicides and fungicides, and relying heavily on fertilisers, all to feed the growing number of mouths.
And all of this intensive farming has had a detrimental impact on the biodiversity of our planet – insect numbers and bird numbers have dwindled at an alarming rate, groundwater has been poisoned and soil degradation is rife.
But all of this doom and gloom can be reversed. Research has shown if soils are managed sustainably, if they are allowed to regenerate, if they are fed organically, if biodiversity is encouraged and farms such as vineyards are treated as whole ecosystems rather than standalone units, wildlife will flourish and soils packed with organic matter will produce ample sustenance for the generations to come.

What is Sustainable Wine?
Why is sustainable wine different from organic, natural wine or biodynamic wine? **Plus why is it our choice!**

Sustainable wine stands for :
- Water and energy conservation
- Reduction in carbon emissions
- Sustainable packaging
- Fair compensation for employees
- Social responsibility to surrounding communities

This means that you can easily find and enjoy **sulphite free wine**, **low histamine wine** or **low sugar wine** if you decide to purchase sustainable wine. Wines Unlimited provides laboratory analysis reports for all its wine, in which the main components are analyzed. (Sulfite, Micro-organisms etc)

Organic vs Biodynamic vs Sustainable vs Pure vs Natural Wine

Each category of 'certification' has differing founding principles (even if there is a lot of overlap). You can think of each category as having a founding principle:

Organic vs Biodynamic vs Sustainable vs Pure vs Natural Wine

- **Organic** : Organic wine is made from grapes grown in accordance with principles of organic farming which excludes the use of artificial chemical fertilizers, pesticides, fungicides and herbicides.
- **Biodynamic** : Biodynamic wine production uses organic farming, while also employing soil supplements prepared according to Rudolf Steiner's formulas, following a planting calendar that depends upon astrological configurations, and treating the earth as "a *living and receptive* organism. *Holistic agricultural health.*
- **Sustainable** : Sustainable wine is a wine that has been produced thoughtfully, economically and ecologically responsible. For a wine to be classed as sustainable, all that means is that throughout its production, the steps that went into growing the grapes and turning them into wine had to have as little impact on the environment as possible. *Mitigation and reduction of wastefulness in winemaking.*
- **Pure / Zuiver** : Pure wines are wines without bacteria and fungi at a low sulfite content. A pure wine is a combination of grapes, terroir, the right microclimate, the right pruning methods and a temperature-controlled, very clean vinification process, climate-controlled transport (at 12 degrees Celsius) to our warehouse, so the wine remains pure/zuiver. Minimal sulfite content to kill bacteria. A Pure wine is in balance (smell, taste and aftertaste)
- **Natural wine** : The overall goal in natural wine production is to have as little human intervention as possible in the journey from the vineyard to the wine. It's fermented with native yeast, industrial (modern) techniques aren't allowed, and there's no filtration. Each bottle of natural wine will be different, cloudy, is often fizzy plus contains (unwanted pg. 2) bacteria. Other terms : low-intervention wine, raw wine, and naked wine

Bacterial spoilage of wine and approaches to minimize it…

Wanted and Unwanted bacteria in wine

Bacteria are part of the natural microbial ecosystem of wine and play an important role in winemaking by reducing wine acidity and contributing to aroma and flavour.
Conversely, they can cause numerous unwelcome wine spoilage problems, which reduce wine quality and value. Lactic acid bacteria, especially *Oenococcus oeni,* contribute positively to wine sensory characters, but other species, such as *Lactobacillus* sp. and *Pediococcus* sp can produce undesirable volatile compounds. Consequences of bacterial wine spoilage include mousy taint, bitterness, geranium notes, volatile acidity, oily and slimy-texture, and overt buttery characters. Management of wine spoilage bacteria can be as simple as manipulating wine acidity or adding sulfur dioxide. However, to control the more recalcitrant bacteria, several other technologies can be explored including pulsed electric fields, ultrahigh pressure, ultrasound or UV irradiation, and natural products, including bacteriocins and lysozyme.

Winemaking and bacteria

Winemaking has a long history dating back over 8000 years. Although the concept of transforming grape must into wine is not difficult to understand, production of a flavorsome and stable wine that does not spoil during storage requires considerable expertise on the part of the winemaker.

Vinification practices today are not vastly different from those of ancient Egyptians and Greeks, however, the contemporary winemaker has much greater control at critical stages from grape harvest to bottling when bacteria can proliferate.

The main role of micro-organisms in winemaking is to convert grape sugars to alcohol, reduce wine acidity and introduce interesting and desirable aroma and flavors to the wine.

Although grape must has a relatively complete nutrient composition, it can support only a limited number of micro-organisms, and wine, with its limited nutrients, is even less inviting. The strongest selection pressures against yeast and bacteria in grape must are high sugar content and low pH, whereas, in wine, it is high ethanol, acidity, SO2 content and limited nutrients. One of the aims of winemaking is to minimize potential for microbial spoilage and this review focuses on bacterial wine spoilage and explores options for curtailing the growth of unwanted bacteria.

Wine-associated micro-organisms

Yeast and bacteria found in grape must and wine originate from the vineyard, grapes, and winery processing equipment. This 'natural microflora' includes several dozen species of yeast, with *Saccharomyces cerevisiae* being predominant. Lactic acid and acetic acid bacteria (AAB) are the only families of bacteria found in grape must and wine. These include four genera of lactic acid bacteria (LAB), *Lactobacillus*, *Leuconostoc*, *Oenococcus* and *Pediococcus* and two genera of AAB, *Acetobacter* and *Gluconobacter*.

Bacterial wine spoilage

Many secondary metabolites produced by bacteria are volatile and potentially affect wine sensory qualities; this review will focus on undesirable flavour compounds.

Figure 1 summarizes the pathways for bacterial metabolism of wine spoilage compounds.

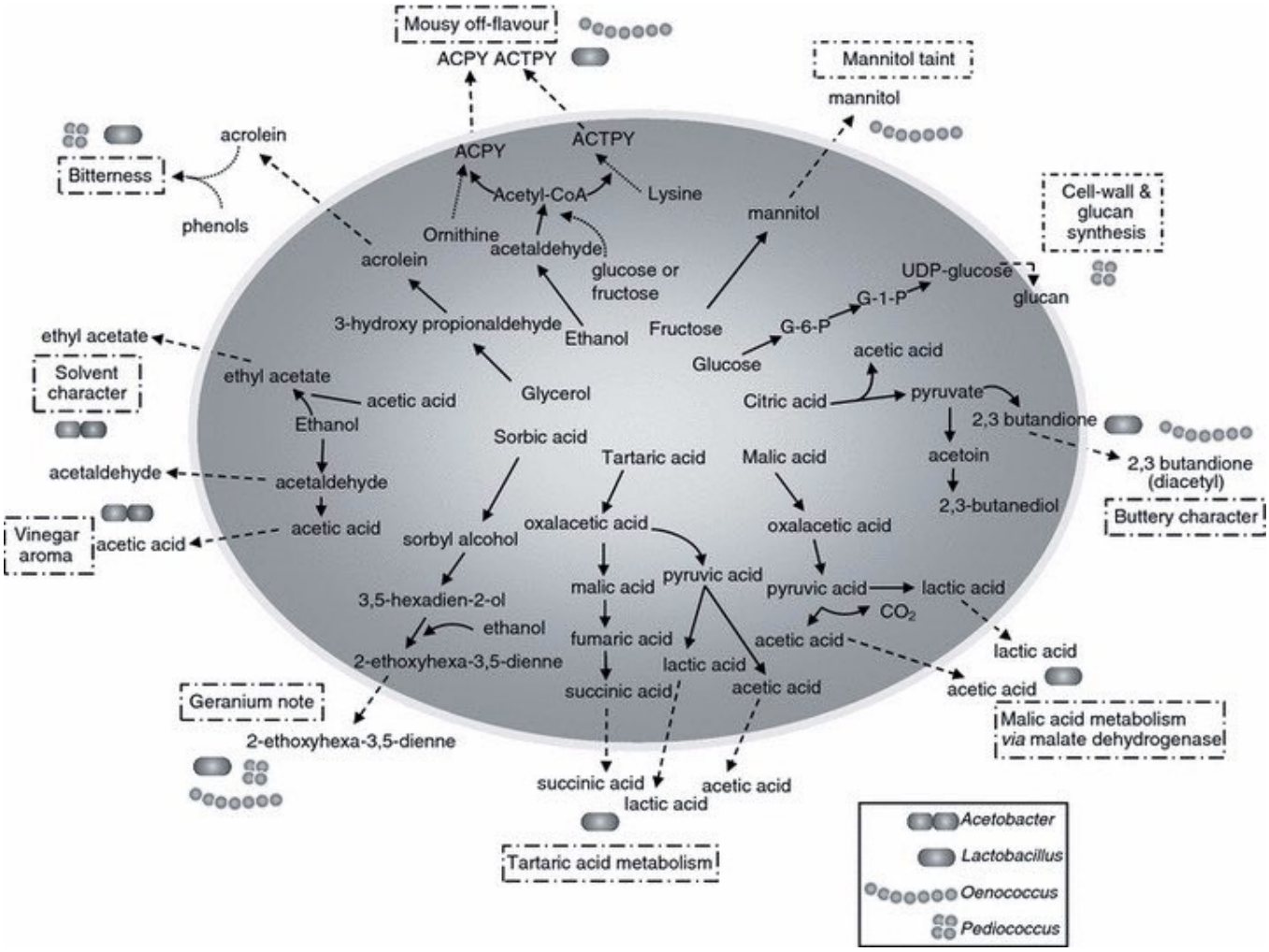
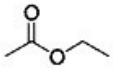
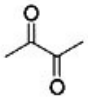
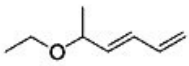
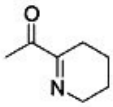
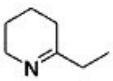
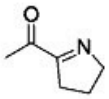
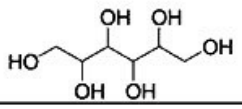


Table 1 lists these compounds, their sensory descriptors and aroma threshold concentrations.

Compound		Sensory descriptor	Aroma threshold	Bacteria (genus)
Acetaldehyde		Bruised apple, sherry-like, nutty	100 mg l^{-1}	*Acetobacter*, *Gluconobacter*
Acetic acid		Vinegar, sour, pungent	0·2 g l^{-1}	*Acetobacter*, *Gluconobacter*, LAB*
Ethyl acetate		Nail polish remover	7·5 mg l^{-1}	*Acetobacter*, *Gluconobacter*, LAB
2,3-Butandione (diacetyl)		Buttery, nutty, caramel	0·1–2 mg l^{-1}	*Oenococcus*, *Lactobacillus*
2-Ethoxy-3,5-hexadiene		Crushed geranium leaves	0·1 μg l^{-1}	*Lactobacillus*, *Pediococcus*
2-Acetyl-tetrahydropyridine (ACTPY)		Caged mouse	4–5 μg l^{-1}	*Lactobacillus*, *Oenococcus*
2-Ethyltetrahydropyridine (ETPY)		Caged mouse	2–18 μg l^{-1}	*Lactobacillus*, *Oenococcus*
2-Acetyl-1-pyrroline (ACPY)		Caged mouse	7·8 μg l^{-1}	*Lactobacillus*, *Oenococcus*
Acrolein		Bitterness		*Lactobacillus*, *Pediococcus*
β-D-Glucan (exopolysaccharide)		Ropy, viscous, oily, slimy, thick texture		*Pediococcus*
Mannitol		Viscous, sweet, irritating finish		*Oenococcus*

*LAB, lactic acid bacteria; includes species from *Lactobacillus*, *Oenococcus* and *Pediococcus*.

EU Organic

Since the 2012 vintage, the EU has implemented defining regulations for organic wine (prior to 2012, wines were labeled only with “wine made from organic grapes”). The new EU organic certification means wines are made with organically grown grapes, all additives (fining agents, yeast, etc.) are organic, and no GMO’s (or other prohibited ingredients) are allowed.

Sulfur additions are limited to 100 ppm in red wines and 150 ppm in white/rosé wines (with a 30mg/l differential where the residual sugar content is more than 2 g/L).

‘Haute Valeur Environnementale’, the alternative to organic?

France has become Europe's largest producer of organic food in recent years…
While organic focuses on a wide range of issues, from ecology to animal welfare, HVE focuses on the environmental impact of agriculture. Emissions, from residues of crop protection products to fertilizers, are central. In that sense, it is a more focused, science-based method. High Environmental Value (HEV - HVE) Agriculture is a French certification created and supervised by the Ministry of Agriculture, Agri-Food and Forestry in order to promote production from farms which voluntary commit themselves to environmental-friendly practices.

Initiated in 2011, it is a global approach to preserve the environment: it does not certify the quality of a product but the environmental quality of a farm. The High Environmental Value certification of a farm is a famers’ initiative supported by all stakeholders of the agricultural and agri-food sectors.
This initiative has 3 levels of progression:

- Level 1: it is the conditionality of aids from the Common Agricultural Policy for the environment. An independent body which has been authorized under the farm advisory system carries out a diagnosis of the exploitation.
- Level 2: The farmer will have to reach a minimum level on the four following themes: biodiversity conservation, phytosanitary strategy, nutrient management & water resource management. A farm which is already committed to an approach which is recognized as having an equal environmental quality by the Ministry (e.g. Area, Terra Vitis) can directly access this second level.
- Level 3: Two alternatives are possible in order to reach this level of certification. Option A consists of achieving certain results for the four previous themes. Option B assesses environmental performance through two composite indicators: the amount of inputs must be less than 30% of the turnover, and the percentage of agricultural land with agro-ecological infrastructures must be more than 10%.

Only the third level allows the use of the term “high environmental value” on products from the farm, thus promoting these products to the consumers. The High Environmental Value certification for farms is a response of the agricultural world to the expectations of society for a more environmental-friendly agriculture based on agro-ecological levers.

Zuivere wijn - Pure Wine

As explained (pg 2)… Pure wines are wines without bacteria and fungi at a low sulfite content. Pure wine is a concept that Wines Unlimited embraces with partners and markets in the Netherlands. We are unique in this with a few players and it includes a number of things;

- when a winemaker works excessively clean and hygienic, the wine needs a minimum content of sulfite to kill the bacteria present.
- a pure wine is incredibly well balanced (smell, taste and aftertaste), and “is just composed very well"
- a pure wine is also a wine made according to today's technical insights. And thus the opposite of a Natural Wine.
- a pure wine is about the end result! An organic or biodynamic wine is more about the way wine is made and not about how pure the wine is in the glass.
- our wineries are selected for purity and sustainability. A winery that works sustainably is focused on preserving the planet by keeping an eye on insect life, soil conditions and the environment.
- compensation of emissions, solar energy, gravity, working as biologically as possible, and so on.

Wines Unlimited and our partners are convinced... Our catering customers and their customers are now also... that is why our company is growing and our philosophy that Pure Wine is the wine of the future.

Sources :

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- Partner van Project Pura een ondernemersplatform en strijden voor het klimaat. projectpura.com