**Headline:** Sustainable Wine Is Less Damaging to the Environment, But How Can You Spot It?

**Teaser:** The eco-footprint of the wine industry is significant, and some wineries are taking steps to reduce their impact.

By Melissa Kravitz Hoeffner

**Author Bio:** Melissa Kravitz Hoeffner is a writer based in New York. She is a writing fellow at [Earth | Food | Life](https://independentmediainstitute.org/earth-food-life/), a project of the Independent Media Institute. She’s written for the New York Times, Bon Appetit, Food & Wine, Travel & Leisure, Conde Nast Traveler, Glamour, AlterNet, Cosmopolitan, Teen Vogue, Architectural Digest, Them and other publications. She holds a bachelor’s degree in creative writing from Columbia University and is also at work on a novel. Follow her on Twitter: [@melissabethk](https://twitter.com/melissabethk).

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**[Article Body:]**

Over [six gallons of water](https://winesvinesanalytics.com/features/article/135078/The-Water-Wise-Winemaker) are required to produce one gallon of wine. “Irrigation, sprays, and frost protection all [used in winemaking] require a lot of water,” explains winemaker and sommelier Keith Wallace, who’s also a professor and the founder of the Wine School of Philadelphia, the largest independent wine school in the United States. And water waste is just the start of the climate-ruining inefficiencies commonplace in the wine industry. Sustainably speaking, climate change could be problematic for your favorite glass of wine.

Wine, in all its sippable glory, is, after all, an agricultural product, dependent on several, ever-changing factors that impact the taste, look and longevity of each bottle. The temperature, the weather and the ground (collectively known as the terroir) the grapes are grown in all affect every single bottle of wine. And, like any product that relies on uncontrollable environmental factors, wine is in trouble due to human-caused climate change.

Rising temperatures, droughts, forest fires, natural disasters and other unfortunate, [once rare, now increasingly more common](https://www.nytimes.com/interactive/2019/10/14/dining/drinks/climate-change-wine.html), climate-related catastrophes are endangering small and large wineries alike. According to a new study, wine regions across the planet could [shrink by more than 50 percent](https://blogs.ei.columbia.edu/2020/01/27/wine-regions-shrink-climate-change/) if temperatures rise by 2 degrees Celsius. (One stopgap solution could be for winemakers to [switch their grape varieties](https://news.ubc.ca/2020/01/27/switching-grape-varieties-can-help-save-worlds-wine-growing-regions-ubc-study/) to those that are more tolerant to drought and heat.)

Not only is our drastically changing planet [threatening the wine varietals whose taste](https://www.washingtonpost.com/lifestyle/food/climate-change-is-reshaping-wine-as-we-know-it/2019/06/06/7d8082c8-8861-11e9-98c1-e945ae5db8fb_story.html) the culinary world has come to favor for having specific characteristics, but the industry as a whole is shifting. Popular wines may be harder to produce, or lose their defining characteristics, as the planet changes.

“When your entire business is predicated on the predictability of the weather, any change in climate, hot or cold, has an enormous impact,” Wallace says. “You work all year, but if it rains at the wrong time or if fires start nearby, then you forfeit your entire salary for the year. That is a terrifying proposition to anyone.” As the director of a wine school, Wallace himself finds that an increasing number of his students are interested in the subject of sustainability and wine. But the topic isn’t nearly as clear as a well-washed Schott Zwiesel Burgundy glass.

**Sustainability Is Subjective**

Sustainability isn’t an absolute, meaning that wine and its agricultural counterparts can be sustainable in some ways, and not so much in other facets. While winemaking may be hyper eco-conscious, bottling and shipping may harm the planet beyond what less sustainable vineyard habits could ever lay claim to. Sustainability is rosé; neither white nor red, not necessarily organic or inorganic, but somewhere in between. And that limbo of sustainability can be, like a nicely chilled pink wine, complex and delicious, though nowhere near as easy to sip.

For instance, organically grown and made wine is not necessarily considered to be organic wine. “In the wine industry, many growers farm organically, but to be certified as an organic farm, the grower must keep records of practices for several years and submit them to one of the certifying organizations, like [California Certified Organic Farmers](https://www.ccof.org/),” explains Vanessa Conlin, head of wine at online wine store [Wine Access](https://www.wineaccess.com/).

These etymological (and bureaucratic) hurdles make it difficult for a wine to become officially organic certified, and therefore the organic practices of omitting synthetic fertilizers, pesticides and other toxins from the wine-growing and making process, though better for the environment and the consumer’s health, typically go unseen on a wine bottle’s label. In France, however, a special European Union regulated label, [the Ecocert](https://www.winetourbooking.com/en/what-is-actually-a-biological-wine/), marks biological (that is, wines free of artificial pesticides, herbicides and fertilizer) wines, proving that such an indicator can be successfully utilized with a little government interest.

In the United States, organic is the most popular label to identify a biological wine, but wines that are labeled organic also cannot contain any added sulfites. Sulfites are a natural by-product of fermentation, but many winemakers add sulfur dioxide as antimicrobial and an antioxidative agent, stabilizing wines to best ensure the bottle tastes as good as expected once uncorked.

“The key difference between sustainable and organic farming is that while sustainability is meant to protect the environment for future generations, it does not have to include organic practices, although many do,” Conlin explains. “Sustainability takes into account the health of the entire business, in ways like water preservation, energy efficiency, and even the well-being of the employees.” [Biodynamic wine](https://www.alcoholprofessor.com/blog-posts/whats-the-difference-between-sustainable-organic-and-biodynamic-wine), which utilizes a closed ecosystem, that is, no outside fertilizers or alternative products, is just one example of a type of sustainable wine.

“Every winery and farm can do it,” [says](https://www.lifeinthefingerlakes.com/hunt-country-vineyards-wins-award/) Art Hunt, who, along with his wife Joyce, founded and owns Hunt Country Vineyards, located near Keuka Lake in the Finger Lakes AVA (“American Viticultural Area,” a federally designated wine grape-growing region) in upstate New York. The Hunts regard their vineyard as a total, biodiverse ecosystem that supports bees, birds and other wildlife.

“It’s not all or nothing,” Hunt says about running a sustainable winery. “You can work at it every year without it impacting your bottom line too much, and gradually increase your profitability.”

**Sipping Wine Sustainably**

The carbon footprint of global winemaking and global wine consumption is nothing to scoff at. The latter, which requires cases of wine be shipped from California to Spain, France to China, Australia to South Africa or perhaps back to Oregon or Alaska and everywhere in between, imprints a deep carbon footprint. Because wine is so region-specific, and only so many regions can create drinkable bottles, ground and air transportation is [responsible for nearly all of the wine industry’s CO2 emissions](https://www.livescience.com/3041-carbon-footprint-wine.html).

Pesticides may fall out of favor, but a craving for an excellent Napa Cabernet in Singapore may not. The solution? Better packaging. “Many sustainable producers are making a concerted effort to lessen their carbon footprint by moving to lighter-weight glass bottles, or are trying alternative packaging, as the actual production of glass is energy-intensive,” Conlin explains. “Cans, kegs, and other alternative types of packaging are lighter to ship and, in the case of kegs, are often reusable.” Wine on tap? Great for the planet!

Unless you’re a hyper-knowledgeable wine consumer, actually understanding how to purchase a bottle of wine sustainably can be befuddling. Beyond the physical packaging, labels like Certified California Sustainable Winegrowing, additional local certifications, and the universal [Demeter](https://www.demeter.de/verbraucher/landwirtschaft/weinbau/weltweit/faq) qualification, only for biodynamic wines, can address environmental concerns. “Look for key terms like sustainable or integrated pest management or even biodynamic,” Wallace suggests. “They mean a wine was made with the goal to protect and maintain the natural ecosphere.”

Also, winemakers use [animal-derived products](https://vegansbaby.com/theres-what-in-my-wine-the-gross-ingredients-in-wine-no-one-talks-about/) to clarify the wine in a process called “fining.” Some fining agents include casein (a milk protein), albumin (egg whites), gelatin (animal protein) and isinglass (fish bladder protein). Since animal agriculture is the [second largest contributor](https://tinyurl.com/vnf53gy) to human-made greenhouse gas emissions after fossil fuels and a [leading cause](https://tinyurl.com/r27g4eo) of biodiversity loss, deforestation, and water and air pollution, eco-minded, animal-friendly wine drinkers may want to seek out vegan wines, which use mineral-based fining agents like activated charcoal or bentonite, a type of clay.

Wine is a dialogue, and there’s no shame in asking a sommelier or wine store professional questions about wine and its sustainable bragging points. Ask which bottles (or cans!) are [sustainable](https://www.foodandwine.com/wine/sustainable-wines-and-spirits) or [vegan](https://vegnews.com/food-recipes/vegan-food-guides/wine), which winemakers prioritize protecting the environment and if there are any local alternatives to a more faraway favorite.

“Industry buyers and restaurants are there to serve the demands of the consumer, so as interest in sustainability grows, savvy merchants are responding to that demand and often notate sustainably farmed wines on shelf-talkers or as symbols on wine lists,” Conlin says. Don’t see sustainable notations at your local wine shop or happy hour spot? Speak up!