

THE EU THREATENS ORGANIC VITICULTURE

At the end of this year, the EU must decide whether to reapprove the use of copper in organic farming. Darren Smith reports.

It's been described as a decision that could mean nothing less than the end of organic viticulture.

Having agreed to extend the use of copper compounds for one year in December 2017, the European Commission is deliberating on whether to ban its use in organic farming in the EU. But in May, MEP Eric Andrieu, head of the PEST committee created to monitor pesticide authorisation in the EU, warned of "dire consequences" for organic winegrowers if use of copper is not reapproved.

The copper controversy

Along with sulphur, copper is commonly used in so-called Bordeaux mixture - copper sulphate (CuSO₄) and slaked lime - as a vineyard pesticide. Copper compounds, including copper sulphate, are authorised in organic viticulture in the EU; however the European Food Safety Authority and the European Chemicals Agency have identified the compounds as potential risks to humans, other animals and micro-organisms in the soil.

Although copper is a heavy metal that can be toxic in high concentrations, soils can metabolise a certain amount without it being poisonous. How much depends on factors such as pH and the level of organic matter the soil contains. Copper is on the EU's list of candidates for substitution, agricultural products which, while approved, possess unfavourable characteristics which mean they will be banned when a viable alternative is found.



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Olivier Humbrecht MW,
Domaine Zind-Humbrecht

The major concern among many winegrowers is that the EU is ploughing ahead with its legislative agenda without proposing a viable alternative. The majority view of European winegrowers and the organisations representing them is that they are several years away from having such an alternative.

"In high dosage, copper can be a poison, but in low dosage, it is actually an oligo-element [trace element] necessary for life," says Domaine Zind-Humbrecht's Olivier Humbrecht MW, who is president of European biodynamics organisation Biodyvin.

He says that for the moment it is possible to do organic viticulture using small amounts of copper. "Banning it completely would mean that growers like us would have to use chemical alternatives that would all be worse for nature, for the environment and for health..." Today, the limit in the European Organic Regulations is 6kg of copper per hectare per year, with a smoothing mechanism of five years, meaning growers can spread their total allocation over that period. Some countries, such as Germany, have settled on a lower national limit of 3kg with an exemption during years with severe weather conditions.

New regulations

Following the EFSA's publication of an in-depth peer review on copper compounds, in May the European Commission proposed a draft new regulation. The proposal is for a limit of 4kg per hectare per year - with no smoothing mechanism. This will be voted on in October. If

approved, it will apply across European wine regions for seven years before any review.

In France, the Fédération Nationale d'Agriculture Biologique (FNAB) has repeatedly warned the European Commission and Parliament, as well as its national ministries, against the proposal. Diane Pellequer, organic wine programme co-ordinator for FNAB, states: "According to a national study of copper use in organic vineyards in France over five years conducted by ITAB (Institut Technique de l'Agriculture Biologique) and the IFV (Institut Français de la Vigne et du Vin) between 2008 and 2012, four kilograms per hectare per year is not enough for a full protection of an organic vineyard, especially in years of high pressure from downy mildew, and especially in northern and western regions such as Champagne, Centre-Val de Loire, Pays de la Loire, Nouvelle Aquitaine. This study shows the loss of harvest during these difficult years."

While Humbrecht MW is typically able to use as little as 1-2kg of copper per hectare per year, he believes the lack of a smoothing mechanism in the EC proposal is a critical flaw. "The yearly dosage doesn't mean anything," he says. "It should be an average calculated over many years. I can base this on looking at the progression of the copper content in the soil versus what we use per year. We see no increase if we stay under three kilos per hectare on average per year. So changing from an average of six kilos of copper per year over five years to a strict four kilos per year is stupid. Banning it completely would mean the end of organic cultivation as such."

Following consultation with organic producers, the European Commission has acknowledged the importance of copper compounds for plant protection; however, it has given little indication of the direction it will take. "My job is to protect public health, so I am concerned about the potential

accumulation of copper – a non-degradable heavy metal – in the soil,” says commissioner Vytenis Andriukaitis. “We will take these submissions into account as we finalise our proposal for a regulation on the renewal of approval of copper compounds as active substances for plant protection products. But the protection of health and of the environment is my main priority.”

In organic agriculture there is no single effective alternative to copper. According to the European Confederation of Independent Winegrowers, the solution could be disease-resistant hybrid cultivars, organic oils and biodynamic preparations. Humbrecht MW also sees potential in developing plants that are capable of metabolising and storing copper. Two EC-funded research projects on the alternatives to controversial inputs, in particular copper, have just begun, but the results will not be available for another four years. Meanwhile MEP Andrieu is planning a conference in the European Parliament in September in collaboration with the French National Institute for Agricultural Research to present the results of experiments carried out on resistant grape varieties.

However, since none of these solutions is yet capable of completely replacing copper, there is a risk that banning it will mean organic wine production in Europe will simply fall off a cliff.

For some, the controversy has brought the subject under welcome scrutiny. Matt Thomson, winemaker for Blank Canvas in New Zealand and a consultant for producers across Europe, believes organic isn't always best. “We certainly aren't anti-organics; however we do think there is a more modern, knowledge-based approach that can be better for the environment. This could include the most environmentally friendly practices from all regimes including organics,” he says. “Where we see a flaw in the general system is the assumption that if it isn't found in nature then it is bad. There are plenty of potent natural carcinogens and toxins, while there are also plenty of synthetic treatments that have been shown to be safe and specific in their action.”



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Vytenis Andriukaitis, commissioner, EU

He says it's also possible that organic producers have to do more spray passes in the vineyard than conventional producers and that “an organic producer is confined to using what can often be broad-spectrum pesticides, which may have quite a bit of collateral damage, when a softer and more specific synthetic alternative is available. I'm convinced that there is a better approach that continually evolves as we learn more about nature.”

A prime example of such an approach comes from Champagne, one of the most difficult wine regions in which to practice organic viticulture.

Champagne Brocard Pierre in the Aube converted to organics in 2015. However winemaker Thibaud Brocard stopped working organically in 2017, a year of unusually high threat of mildew,

because the only way to prevent mildew damage was to use chemical products. He used a non-systemic chemical product with “minimal” phytotoxicity and saved much of his harvest. “Last year I did eight sprays,” he explains. “Four were only organic with copper, and four others were with a bit of the chemical product, but 40% of the normal dose – and I had a total harvest I was so happy about. One of my friends in my village, who is organic, did 19 sprays of copper and he had four tonnes of grapes per hectare when he should have had 12 tonnes.” He adds: “The big problem is that the EU is ruling organics in a national way. It's a true mistake. The only good way is to have special rules for each place. So for Champagne we should have certain products that we can use. In the south, they should have less, because they have much less disease. The future is organic, of course. But we cannot be blind.”

Lorenza Romanese is the policy adviser for the European Confederation of Independent Winegrowers, representing 12 member states and 12,000 small and medium-sized wine producers. She is adamant that organics is the way forward, but equally that a ban on the use of copper is not. “The fact is that we [are taking a] risk to take out organics from the market and as well we [are taking a] risk to convince winegrowers to switch back to conventional

farming – and to use some substances which are really harmful for the environment,” she says. “The toolbox in the hands of winegrowers is not complete. We are on the right path, but we are not ready yet, the solutions are not on the ground. That's why we ask them to keep the status quo.” Romanese says that one thing they particularly want to keep is the smoothing mechanism. “The EU did not put this proposal on the table. They took it out, which is quite stupid because it costs nothing for winegrowers and it also makes them responsible for their use of copper, because they know that they could have more need the year after. So we want the status quo, we want more time, and we want the smoothing mechanism – that is our position.”

The current EC authorisation on copper expires on 31 January 2019. The decision regarding renewal, which is being made by the Standing Committee on Plants, Animals, Food and Feed, needs to be taken by that time. Assuming there is not an outright ban, Romanese is hopeful that some member states will table an amendment to include the smoothing mechanism for approval in October at the next committee meeting.

The situation is urgent and most parties believe the European Commission must take heed. Organic winegrowing may not be in crisis yet, but it very soon could be. ■



Matt Thomson, winemaker and wine consultant