

**EGTOP/2020**



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR AGRICULTURE AND  
RURAL DEVELOPMENT

Directorate B. Quality, Research & Innovation, Outreach  
**B.4. Organics**

**Expert Group for Technical Advice on Organic Production**

**EGTOP**

**Reassessment of the use of Potassium Phosphonate as a plant protection mean to control  
downy mildew on grapevine**

The EGTOP discussed this technical report at the plenary meeting of 3 to 5 December 2019.

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***About the setting up of an independent expert panel for technical advice***

With the Communication from the Commission to the Council and to the European Parliament on a European action plan for organic food and farming adopted in June 2004, the Commission intended to assess the situation and to lay down the basis for policy development, thereby providing an overall strategic vision for the contribution of organic farming to the common agricultural policy. In particular, the European action plan for organic food and farming recommends, in action 11, establishing an independent expert panel for technical advice. The Commission may need technical advice to decide on the authorisation of the use of products, substances and techniques in organic farming and processing, to develop or improve organic production rules and, more in general, for any other matter relating to the area of organic production. By Commission Decision 2017/C 287/03 of 30 August 2017, the Commission set up the Expert Group for Technical Advice on Organic Production.

***EGTOP***

The Group shall provide technical advice on any matter relating to the area of organic production and in particular it must assist the Commission in evaluating products, substances and techniques which can be used in organic production, improving existing rules and developing new production rules and in bringing about an exchange of experience and good practices in the field of organic production.

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The report of the Expert Group presents the views of the independent experts who are members of the Group. They do not necessarily reflect the views of the European Commission. The reports are published by the European Commission in their original language only.

[http://ec.europa.eu/agriculture/organic/home\\_en](http://ec.europa.eu/agriculture/organic/home_en)

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**ACKNOWLEDGMENTS**

Members of the EGTOP Group are acknowledged for their valuable contribution to this technical advice.

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All declarations of interest of Permanent Group members are available at the following webpage: [www.organic-farming.europa.eu](http://www.organic-farming.europa.eu)

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# Reassessment of the use of Potassium Phosphonate as a plant protection mean to control downy mildew on grapevine

## **EXECUTIVE SUMMARY**

In light of the most recent technical and scientific information available to the experts, as well as on the basis of the previous EGTOP Reports, and considering the request received by a MS, the Group was asked to discuss on the acceptability of the renewed request for Potassium Phosphonates, in view of possible new elements presented in the request.

During the meeting of 3-5th December 2019, EGTOP evaluated the request and concluded that, although the last years extreme events, probably linked to climate change, are causing more difficult conditions in several countries, and the new regulation reduces the amounts of Copper allowed in some countries, there are no major changes concerning the reasons for rejection of Potassium Phosphonate, since its previous evaluation in 2014, leading to a need for a new evaluation.

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## 2. CONSIDERATIONS AND CONCLUSIONS

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The facts taken into consideration were:

1. **new limitation on copper use:** the EU regulation into force since 2019 reduces to amount of copper to 4kg/ha/year with the possibility to calculate it as an average over 7 years. It means no change (or even an easier situation) for countries where the limitation to 3-4kg/ha/year was already into force, i.e. Germany, Austria. The major impact is taking place in countries like France, Italy or Spain, where the limitation was previously set at 6kg/ha/year and where several areas undergo severe meteorological conditions, with long periods with high temperatures and frequent rainfall.
2. **agronomic preventative measures:** in the last years it became even more clear that in order to manage an organic vineyard efficiently and successfully an agronomic/agroecological approach is needed. It is acknowledged also within the German research project VITIFIT (<https://www.hs-geisenheim.de/en/university/news-events-dates/news/archiv/details-view-start/n/praxisforschungsprojekt-vitifit-gestartet/>) where an agro-ecological approach is implemented and assessed. And also within the EIP-AGRI Focus Group on IPM in viticulture, that identified and described this approach in its final report (<https://ec.europa.eu/eip/agriculture/en/focus-groups/diseases-and-pests-viticulture>). A specific minipaper of the FG focuses on copper replacement/reduction (annex 1), listing all the measures that in a concerted and coordinated way allow a relevant reduction of copper needed for an efficient protection of the vineyard. Similar considerations are reported in INRA/ITAB publication from 2018 “Peut-on se passer du cuivre en protection de cultures biologiques” (<https://www.inrae.fr/actualites/peut-se-passer-du-cuivre-agriculture-biologique>) and Deliverable 7.3 of the H2020 project RELACS (annex 2)
3. **amounts of copper really needed:** being aware that the best option, for environmental reasons, is to avoid any use of copper, a process of progressive reduction is on-going since the late '90s and, so far, a totally copper-free organic viticulture can be implemented only in areas and years with low pathogen pressure. Long term research activity demonstrated the fact that very low dosages (200-400g Cu/ha) are enough to protect grape leaves from black mildew. As a matter of fact, dosages higher than 5 mg Cu/m<sup>2</sup> (of grapevine leaf material) did not prove to be more effective than the dosage of 5 mg Cu/m<sup>2</sup> itself (see Cabùs A. et al, 2017 paper, annex 3). It leads to confirm that a sufficient protection of the canopy can be granted, even in

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bad weather conditions and high pathogen pressure, with 4 kg/ha/year and potentially lower amounts if all operations are fine-tuned.

Further reductions (or even the complete elimination of copper use) are tested in research and innovation projects, for example the newly started implementation testing of the approach that involves the monitoring of active copper on the leaves (OG INTAVIEBIO).

4. **alternative products for copper replacement:** recent scientific outcomes confirm that substances with broad spectrum of action (as copper) and acceptable in organic farming are facing difficulties in becoming available. So the debate for the coming years is more focused on how to reduce copper use through a combination of approaches. At the same time scientific work confirmed the usefulness of elicitors and other natural products whose activity can replace copper in low pathogen pressure moments/seasons and reduce it importantly in high pathogen pressure circumstances (see Life project Green Grapes <http://www.lifegreengrapes.eu/>, and the publication on IOBC-WPRS Meeting of the Working Group 2019 abstract book Carella G. et al- Can we get a pesticide reduction by integrating defence inducers in grapevine protection?). It all leads to confirm that a low copper dosage efficient protection is possible with the support of elicitors, biostimulants, microbial products etc. within a clever strategy.
5. **DSS and other technology tools:** within the integrated approach, the use of Decision Support System/Tools and sensors can be of great help in increasing the efficiency of copper and auxiliary products. They have a relevant role within the vineyard protection strategy, and they become a must in organic viticulture. Several DSS became available in last years and are gaining space in practical use in large part of the European vineyard.
6. **the problem of residues:** the very relevant issue of residues caused by the use of phosphonate is still pending. Recent research project BIOFOS confirms the difficulties in identifying the origin of detected residues and the long period in which residues can be found after use in woody crops (see annex 4). Besides, few information is available on residues quantification.
7. **extreme weather conditions and events:** 2018 and 2019 weather increased the difficulties in protecting vineyards in several European wine producing areas, not only in Central Europe. Especially the continuous and abundant rainfall in May and June 2019 induced difficulties in the management and heavy losses of production in many areas. The mechanism introduced by the new regulation, where the copper use is calculated over a period of 7 year (and not annually), facilitates the management of such years, as “heavy copper use years” are compensated by “low pressure years”.

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## 3. ANNEXES



Annex 1

FG23\_minipaper copy



Annex 2 D7.3

RELACS.pdf



Annex 3 Cabùs et  
al.paper.pdf



Annex 4

BIOFOSF-WINE Project