

A guide to grapevine red blotch disease and its global wine production impacts

November 14 2023



A healthy vine (left) next to plant showing symptoms of Grapevine Red Blotch Disease (right). Credit: Cornell University/Marc Fuchs

In [PLOS Pathogens](#) an international team led by Dr. Björn Krenz from the Department of Plant Viruses at the Leibniz Institute DSMZ-German

Collection of Microorganisms and Cell Cultures GmbH summarizes the latest research findings and unanswered questions surrounding the globally spreading disease of grapevines.

GRBD, first identified in California in the 2000s, is a viral infection affecting both wild and commercial grapevines. The [disease](#), caused by the [grapevine](#) red blotch [virus](#) (GRBV), leads to poor grape quality due to disrupted ripening processes. Dr. Krenz notes, "The lower quality of wine produced from infected grapes is causing considerable economic losses to winegrowers."

The study suggests that GRBV likely originated in North America and is spreading globally, mainly through the transport of infected cuttings. In addition, the three-cornered alfalfa hopper (*Spissistilus festinus*) is identified as a potential carrier. To combat this spread, researchers recommend the use of GRBV-free plant material and, in heavily affected areas, the complete removal of infected vines.

Although significant progress has been made in understanding GRBD, many questions remain unanswered, including the full extent of its spread, the exact mechanisms of grape damage and possible other vectors or viruses involved. Further research is crucial for the protection and sustainable development of the global wine industry.

More information: Björn Krenz et al, Grapevine red blotch disease: A comprehensive Q&A guide, *PLOS Pathogens* (2023). [DOI: 10.1371/journal.ppat.1011671](#)

Provided by Leibniz-Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH

Citation: A guide to grapevine red blotch disease and its global wine production impacts (2023, November 14) retrieved 29 April 2024 from <https://phys.org/news/2023-11-grapevine-red-blotch-disease-global.html>

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