



European workshop on  
**"Flavescence dorée"**

Recent acquisitions and management strategies

25-26 January 2024 – Verona, Italy

**Book of Abstracts**

## **FD2024 Book of Abstracts**

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### **European workshop on "Flavescence dorée" Recent acquisitions and management strategies**

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## Status of *Scaphoideus titanus* in Serbian vineyards two decades later

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“Flavescence dorée” (FD) is a European quarantine disease affecting grapevines, associated with the “flavescence dorée” phytoplasma and transmitted by the North American leafhopper, *Scaphoideus titanus*. This pathogen has a significant impact on the major viticultural areas across Europe, as well as all wine-producing regions in Serbia. The occurrence of *S. titanus* was initially recorded in Serbian vineyards in 2002 (Magud and Toševski, 2004). However, the high population density observed at that time suggests that the vector's presence likely dates back to the 1990s (Ivo Toševski, unpublished data). Despite the extensive measures to contain the pathogen, the encompassing disease and vector surveillance, the mandatory insecticidal treatments against *S. titanus*, and the utilization of certified phytoplasma-free planting material, the disease continues to spread. Presently, FD affects vineyards in all districts of Serbia (Krstić *et al.*, 2022). A recent two-year survey (2022-2023) on *S. titanus* distribution in both wild and cultivated areas within vineyard ecosystems revealed widespread prevalence of the vector across all grapevine-growing regions in Serbia. High population densities were observed in districts where Map-FD3 genotypes are common. These include grape-producing regions all over Serbia where the autochthonous M51 genotype is dominant, hosted by grapevine, along with reservoir plants *Clematis vitalba* and *Ailanthus altissima*. Additionally, substantial *S. titanus* populations were registered in northern Serbia, where multiple outbreaks of the M12 genotype occurred, and central Serbia, where five new genotypes (M150-M154) were detected in grapevines, indicating a high endemic potential for new outbreaks in these regions. Finally, significant populations of the insect vector were discovered in riparian habitats near rivers in Podunavlje and Mačva, where two “flavescence dorée” endemic

genotypes of the Map-FD2 (M89 and M148) were found in grapevines (Krstić *et al.*, 2022). The current phytosanitary situation in Serbian vineyards provides evidence that, despite measures implemented over the past two decades, there has been no substantial reduction in the population density and spread of *S. titanus*. Due to the high complexity of the “flavescence dorée” epidemiological cycle caused by natural reservoir plants and native or introduced insect vectors, linking natural habitats with adjacent vineyard ecosystems, managing ongoing epidemics and preventing new outbreaks in the Balkans remains a challenge.

### Literature cited

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