

Evaluating the risk of spread of Scaphoideus titanus with propagation material (PROPSCAPH)







Funding

Virtual Common Pot, via a competitive call. Each funder only paid for the participation of their own national researchers. The total funding of the project was €85,000

Goals

To reduce the risk of introducing and spreading S. titanus on propagation material into pest-free areas.

Research consortium

France: INRA; Italy: CRA; Slovenia: UP-CRS; Switzerland: ACW.

Contact information

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Objectives

- Study of the colonisation and introduction history of S. titanus in Europe based on microsatellite and mitochondrial markers using adult samples from France, Slovenia, Italy and Switzerland.
- Evaluation of the efficacy of insecticide treatment to reduce entry of S. titanus adults into nurseries by monitoring adults regularly before and after treatment on a grid within and outside of nurseries.
- Study of S. titanus egg distribution and evaluation of hot water treatment by observing egg frequency and egg hatching, respectively, on planting material from nurseries and from untreated or abandoned vineyards.

Key outputs and results

- Low levels of genetic variability among populations and significant patterns of isolation by distance suggest that S. titanus has substantial dispersal abilities, naturally or on propagation material.
- Insecticide applications in nurseries are efficient when applied correctly. Re-infestation from adjacent vineyards cannot be excluded, but is rare.
- Oviposition is much less likely on one-year-old grapevine wood than older wood.
- Hot-water treatment is effective against S. titanus eggs, but 100% mortality is not achieved.