

P79 – Identification of nematode-resistant grapevines for rootstock breeding by screening *via* glass vial assay

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Abstract

Rootstock breeding focuses on nematode resistance to fight indirectly the fanleaf degeneration disease caused by Grapevine fanleaf virus (GFLV), which is transmitted by the vector nematode *Xiphinema index*. Screening of candidate *Vitis* genotypes was performed based on nematode reproduction and fertility rates and virus diagnosis of test plants after inoculation with viruliferous nematodes and incubation for 35 days in glass vials. 11 *Vitis* candidates out of 68 genotypes were identified as nematode resistant and 3 of them remained GFLV-negative after exposure to viruliferous nematodes in the assay. The time and space saving setup of the assay enabled the efficient identification of promising nematode resistant genotypes with a genetic background from *Vitis aestivalis* or *Vitis labrusca*. The selected candidate genotypes may be considered for future rootstock resistance breeding

Keywords: *Xiphinema index*, resistance screening, nematode reproduction rate, *Vitis aestivalis*, *Vitis labrusca*,