

GRAPEVINE VIRUS DISEASES IN THE ISLAND OF PAROS

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During the decade 1995-2005, in the frame of a research activity to improve the local viticulture, a study was carried out aiming to identify grapevine viruses endemic in vineyards grown local wine varieties. Dormant canes collected from selected vines were tested - at least three years - by ELISA for the presence of the following viruses: Grapevine fanleaf Nepovirus (GFLV), Grapevine leafroll associated Closterovirus -2 (GLRaV-2), Grapevine leafroll associated Ampelovirus -1, -3, -6 & -7 (GLRaV-1, -3, -6 & -7), Grapevine Vitivirus A (GVA), Grapevine Vitivirus B (GVB) and Grapevine fleck Maculavirus (GFkV).

In total 98 grapevine plants from 12 local varieties (Monembasia, Mandilaria, Mandilari white, Vaftra, Aidani red, Aidani white, Aspruda, Malucato, Trifera, Potamissi, Potamissi red and Glicadi) were tested using cortical scrapings and commercial diagnostic kits.

GVA, the virus associated with stem grooving disorder, was found in 36 vines, following by the Nepovirus GFLV in 23 vines. Only two Closteroviridae, GLRaV-3 and GVLraV-7, were detected in a low number of vines (1 and 9, respectively). Incidence was higher in Mandilaria, the main red wine grown variety (63% of vines were infected), while Monembasia, the main white wine variety, exhibited a lower percentage of infected vines (22%). As regard the others grapevine varieties, growing in limited areas of the island, they were highly infected with GVA and GFLV (infection rate was fluctuated between 50 and 100%).

Results showed the unsatisfactory sanitary status of Parian viticulture and the urgent need to produce certified propagating material through sanitation procedures (meristem tip culture and thermotherapy) of the local varieties, thus to improve the quality of yield and increase the importance of the island's wine industry.