

DISEASE NOTE

FIRST REPORT OF OLIVE VIRUSES IN
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Olive is one of the most important crops of Turkey, with a production of 1,500,000 t (FAO statistics, 2002). To study the health status of this crop, surveys were conducted in Aegean (Balıkesir, Canakkale, Izmir and Manisa provinces) and East Mediterranean (Hatay province) regions of Turkey. General symptoms of virus diseases were observed as stunting, bushy shoots, leaf deformation, chlorotic and necrotic spots on the leaves and deformation of fruits and stones. A total of 194 samples of leaves and flowers were collected in the Aegean Region during 1994-1995 and tested by DAS-ELISA (Clark and Adams, 1977). According to ELISA results infection rates by Strawberry latent ring spot virus (SLRSV) *Cherry leaf roll virus* (CLRV), *Cucumber mosaic virus* (CMV) and *Arabidopsis mosaic virus* (ArMV) in leaf samples were 33.2, 23.0, 24.0, and 10.2%, respectively. When flowers were tested, infection rates were 21.9, 20.9, 21.9, and 7.1%, for SLRSV, CLRV, CMV, and ArMV, respectively. According to a 1997-1998 survey in the Mediterranean region, 114 of 180 samples were found to be infected with SLRSV, CLRV, and ArMV, individually or in mixed infections. The general infection rates in Hatay province were 47.7, 46.1, and 32.2% for SLRSV, CLRV, and ArMV, respectively. All of 76 samples, tested for the presence of *Olive latent ring spot virus* (OLRSV), *Olive latent virus 1* (OLV-1) and *Olive latent virus 2* (OLV-2) were negative. This is the first report of olive viruses in Turkey.

Clark M.F., Adams A.N., 1977. Characteristics of the microplate method of enzyme-linked immunosorbent assay for the detection of plant viruses. *Journal of General Virology* **34**: 475-483.

DISEASE NOTE

FIRST REPORT OF PLUM BARK
NECROSIS STEM PITTING-ASSOCIATED
VIRUS IN MOROCCOA. Bouani¹, A. Minafra², I. Alami³, M. Zemzami³ and
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A survey was made in Morocco to evaluate the sanitary status of stone fruit trees. In the course of this study, stem pitting symptoms were observed in several scattered wild almond trees in the Ouzud Falls area. These trees were ungrafted and had a seedling origin. Their cortex was thick and corky and had needle-shaped pegs 5-6 mm, long protruding from the cambial surface, which corresponded to pits on the xylem. One-year-old shoots were collected from two of twenty symptomatic trees and tested by nested-PCR for the presence of Plum bark necrosis stem pitting-associated virus (PBNSPA-V). Total nucleic acid (TNA) was extracted from cortical scrapings. Two PCR rounds were made, i.e. RT-PCR done using the primers ASP1 and ASP2 (Abou Ghanem *et al.*, 2001), followed by a nested-PCR using the primers ASPn1 and ASPn2 (Amenduni *et al.*, 2003). A product with the same size (191 bp) as that reported for PBNSPA-V by Amenduni *et al.* (2004) was amplified from both samples and hybridized in Southern blots with a probe to the PBNSPA-V HSP70 homologue gene. This is the first report of stem-pitting disease and its associated tentative ampelovirus in Morocco. The presence of stem pitting in seedling-derived trees is intriguing, but if this is due to transmission through seeds or by vectors remains to be established.

Abou Ghanem-Sabanadzovic N., Mahboubi M., Di Terlizzi B., Sabanadzovic S., Savino V., Uyemoto J.K., Martelli G.P., 2001. Molecular detection of a closterovirus associated with apricot stem pitting in southern Italy. *Journal of Plant Pathology* **83**: 125-132.

Amenduni T., Minafra A., Savino V., 2003. Detection of Plum bark necrosis stem pitting-associated virus (PBNSPA-V) from different stone fruit species and optimisation of diagnostic tools. *Acta Horticulturae* (in press).

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Received 9 September 2003
Accepted 26 November 2003

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Received 20 February 2003
Accepted 25 March 2003

DISEASE NOTE

**CUCUMBER MOSAIC VIRUS IN
NICOTIANA GLAUCA IN GREECE**

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Severe mosaic and malformation of the leaves of *Nicotiana glauca* plants have been repeatedly observed during the last few years in Epirus (Greece). Leaf samples collected from symptomatic plants growing in two different locations were used to infect herbaceous hosts by mechanical inoculation. A virus with isometric particles ca. 30 nm in diameter was consistently observed by electron microscopy in leaf dip preparations from inoculated *N. glutinosa* plants. In gel double diffusion tests, sap from naturally infected *N. glauca* and from partially purified preparations extracted from *N. glutinosa* reacted positively with an antiserum to *Cucumber mosaic virus* (CMV). In agarose gel electrophoresis, viral RNA extracted from purified virus particles migrated as five bands consistent in size with those of CMV. The fastest moving band hybridized with a CMV satellite RNA riboprobe. RT-PCR-RFLP showed that the CMV isolate under study belonged to subgroup II (Finetti-Sialer *et al.*, 1999). This is the second virus to be isolated from *N. glauca* in Greece, the first being *Tomato bushy stunt virus* (Grieco and Vovlas, 2001). The role of *N. glauca* in the epidemiology of CMV and its satellite RNA would be worth further investigation.

Finetti-Sialer M.M., Cillo F., Barbarossa L., Gallitelli D., 1999. Differentiation of cucumber mosaic virus subgroups by RT-PCR-RFLP. *Journal of Plant Pathology* **81**: 145-148.

Grieco F., Vovlas C., 2001. Tomato bushy stunt virus in *Nicotiana glauca* in Greece. *Journal of Plant Pathology* **83**: 225-227.

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Received 2 December 2003
Accepted 20 December 2003

DISEASE NOTE

**FIRST REPORT OF APRICOT LATENT
VIRUS IN TURKEY**M. Gümüş¹, M. Al Rwahnih² and A. Myrta³

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In a preliminary survey for the assessment of the sanitary status of apricot crops in two locations of Western Turkey (Bademli and Bornova), leaf extracts from 50 trees of 19 different cultivars were checked by ELISA for the presence of *Prunus necrotic ring spot virus* (PNRSV), *Prune dwarf virus* (PDV), *Apple chlorotic leaf spot virus* (ACLSV), *Apple mosaic virus* (ApMV) and *Plum pox virus* (PPV), and used for mechanical transmission to herbaceous hosts. PNRSV, ACLSV, and PPV were detected serologically in 8, 3 and 1 plants, respectively. From six of the samples a virus was isolated that elicited systemic chlorotic spots and vein clearing in *Nicotiana occidentalis*. Extracts from infected plants did not react with antisera to any of the above viruses. Total nucleic acids were therefore extracted from symptomatic *N. occidentalis* and tested by dot-blot hybridisation for the presence of *Apricot latent virus* (ApLV), a definitive species in the genus *Foveavirus*, using a ApLV-specific riboprobe (Abbadì, 2002). Four of the six samples gave a positive response. However, RT-PCR using the ApLV-specific primers pairs H-ALV1/C-ALV1 designed by Nemchinov *et al.* (2000) resulted in the amplification of a 200 bp product from all six apricot samples and from symptomatic *N. occidentalis*. Infected apricot varieties were Royal and Tyrinthos. This is the first report of ApLV in Turkey.

Abbadì H., 2002. Identification of *Apricot latent virus* (ApLV) in Palestine and survey for the presence of ApLV and American plum line pattern virus (APLPV) in Southern Italy. Master of Science Thesis. Mediterranean Agronomic Institute, Bari, Italy.

Nemchinov L.G., Shamloul A.M., Zemtchik E.Z., Verderevskaya T.D., Hadidi A., 2000. *Apricot latent virus*: a new species in the genus *Foveavirus*. *Archives of Virology* **145**: 1801-1813.

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Received 21 January 2004
Accepted 23 January 2004