



DISEASE NOTE

FIRST REPORT OF TOMATO SPOTTED WILT VIRUS IN GLOBE ARTICHOKE IN GREECEL. Lotos¹, K. Efthimiou¹, E.K. Chatzivassiliou²,
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In February 2005 and November 2007, globe artichoke (*Cynara scolymus* L.) plants showing virus-like symptoms were observed in Argolida (southern Greece, Peloponnese) and Komotini (northern Greece, Thrace), close to lettuce and tobacco fields both infected with *Tomato spotted wilt virus* (TSWV). The incidence of diseased plants ranged from 3% to 7% in Argolida and Komotini, respectively. Leaf samples from symptomatic plants were analyzed in DAS-ELISA with polyclonal antisera to TSWV, *Cucumber mosaic virus* (CMV) and *Turnip mosaic virus* (TuMV). Plants exhibiting chlorotic and/or necrotic rings, line patterns of the leaves and mild to severe stunting reacted only with the antiserum to TSWV. Out of 40 samples tested, TSWV was detected in 25 and 30 samples from Argolida and Komotini, respectively. In RT-PCR, amplicons of the expected size (ca. 270 bp) were obtained from all samples that tested positive for TSWV in ELISA with primers: upstream 5'-GTC GAA ATG GTC GGC A-3' and downstream 5'-AAT TGC CTT GCA ACC AAT TC-3' (Weekes *et al.*, 1996). Sequenced PCR products (AM940436) showed nucleotide sequence identity ranging from 94% to 96% with other TSWV isolates (AY070218 and AB198742, respectively). Adult thrips collected from infected plants in Argolida were identified as *Frankliniella occidentalis*, but only *Thrips tabaci* adults were found on symptomatic plants in Komotini. A number of samples exhibiting vein clearing, leaf deformation and crinkling did not react serologically to TSWV, CMV or TuMV. TSWV is a known pathogen of globe artichoke (Gallitelli *et al.*, 2004). Although it is found in several crops in Greece (Chatzivassiliou *et al.*, 2000), to our knowledge, this is the first natural infection of globe artichoke by TSWV in Greece.

Chatzivassiliou E.K., Weekes R., Morris J., Wood K.R., Barker I., Katis N.I., 2000. *Tomato spotted wilt tospovirus* (TSWV) in Greece: its incidence following the expansion of *Frankliniella occidentalis*, and characterization of isolates collected from various hosts. *Annals of Applied Biology* **137**: 127-134.

Gallitelli D., Rana G.L., Vovlas C., Martelli G.P., 2004. Viruses of globe artichoke: an overview. *Journal of Plant Pathology* **84**: 267-281.

Weekes R., Barker I., Wood K.R., 1996. An RT-PCR test for the detection of *Tomato spotted wilt tospovirus* incorporating immunocapture and colorimetric estimation. *Journal of Phytopathology* **144**: 575-580.

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DISEASE NOTE

FIRST REPORT OF ROOT ROT CAUSED BY ROSELLINIA NECATRIX TO ALMOND NURSERY TREES AND FIG ORCHARD TREES IN GREECE

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Rosellinia spp. have been recorded all over the world as root rot pathogens of many plants, mainly trees. *Rosellinia necatrix* Prill. (anamorph: *Dematophora necatrix* Hartig) is among the best known species. This fungus is a pathogen that causes root rot of many orchard trees, such as almond, peach, plum, apple, pear, olive, cherry and avocado (Sousa *et al.*, 1995). In spring and summer 2008, almond nursery trees in Thessaly (central Greece) and fig orchard trees (*Ficus carica*) in the Greek island of Evoia were found to be affected by a soil-borne pathogen that formed a white cottony mycelium and mycelial strands at the crown of the plant, or on the main roots, and induced leaf yellowing. Almond nursery trees died in 5-6 days. Fig trees were killed in a single season or in a couple of years. Diseased almond trees occurred in patches in the nursery plots due to the pathogen spread to neighbouring plants. The identification of the casual agent of the disease was based on microscopic observation of the vegetative mycelial structures, isolated from affected tissues and grown in artificial culture onto potato dextrose agar plates. Mycelia obtained from different sources consistently showed the pear-shaped hyphae and synnemata typical of *R. necatrix* (Sivanesan and Holliday, 1972). To the best of our knowledge, this is the first record in Greece of *R. necatrix* attacks to almond trees in the nursery and to fig trees in commercial orchards.

Sivanesan A., Holliday P., 1972. *Rosellinia necatrix*. C.M.I. Descriptions of Pathogenic Fungi and Bacteria. No. 352.

Sousa A.J.T., Guillaumin J.J., Sharples G.P., Whalley A.J.S., 1995. *Rosellinia necatrix* and white root rot of fruit trees and other plants in Portugal and nearby regions. *Mycologist* **9**: 31-33.

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