

DISEASE NOTE

**FIRST REPORT OF LEAF SPOT OF
CONVOLVULUS ARVENSIS CAUSED
BY PHOMA MACROSTOMA var.
MACROSTOMA IN TURKEY**

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In May 2012, *Convolvulus arvensis* plants with irregular tan-colored necrotic lesions on the leaves were observed near Ondokuz Mayıs University (Samsun, Turkey). Leaves with lesions were surface-disinfected for 5 min in 10% bleach followed by incubation at 20-25°C in a moist chamber. Pycnidia developed after 5-7 days, and pure cultures were obtained by transferring conidia from pycnidia onto oatmeal agar. Colonies were peach-colored, and did not change color with the addition of NaOH. Pycnidia in culture were scattered, globose, 119.6 µm in diameter, with one papillate ostiole (average 29.7 µm in diameter) with glabrous and elongated necks (average 199.5 µm in length). Conidia were aseptate, hyaline, and ellipsoidal to oblong (average 8.1×2.7 µm). Conidial matrix color varied from gray to flesh to salmon. These characters matched the description of *Phoma macrostoma* Mont. var. *macrostoma* (Boerema *et al.*, 2004). A specimen was deposited with the US National Fungus Collections (BPI 892537). DNA sequences for the internal transcribed spacers (GenBank accession No. KC590613) aligned, after BLAST analysis, 97% to 10 isolates of *P. macrostoma* var. *macrostoma* and 99% to two isolates of *P. macrostoma* (GenBank accession Nos HM755951 and DQ474091). Conidia were spray-inoculated, in a suspension of 10⁶ conidia ml⁻¹, onto twenty 30-day-old *C. arvensis* plants; another 10 control plants were sprayed with water only. Plants were placed in a dew chamber at 25°C for 40 h, then moved to a 20-25°C greenhouse. All inoculated plants but none of the controls, became diseased. *P. m.* var. *macrostoma* was re-isolated from all inoculated plants. To our knowledge this is the first report of *P. m. macrostoma* from *C. arvensis*.

Boerema G.H., de Gruyter J., Noordeloos M.E., Hamers M.E.C., 2004. *Phoma* identification manual. CABI Publishing, Wallingford, UK.

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**FIRST REPORT OF SOLANUM
ELAEAGNIFOLIUM AS NATURAL HOST
OF TOMATO YELLOW LEAF CURL
VIRUS SPECIES (TYLCV AND TYLCSV) IN
TUNISIA**

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Tomato yellow leaf curl virus (TYLCV) and Tomato yellow leaf curl Sardinia virus (TYLCSV) (genus *Begomovirus*, family *Geminiviridae*), as well as recombinant variants, were recently found in tomato in Tunisia (Mnari-Hattab *et al.*, 2014). To identify sources of infection, tomato plants and *Solanum elaeagnifolium*, an invasive weed, were sampled and tested for the presence of TYLCV and TYLCSV. Genomic DNA was purified from leaf samples showing curling and yellowing and subjected to PCR using primers designed in the coat protein gene of TYLCV (Mnari-Hattab *et al.*, 2014; Wyatt and Brown, 1996). A product of ca. 580 bp was obtained from four of six *S. elaeagnifolium* and six of six tomato samples tested. The nucleotide sequence of one amplicon from tomato and two amplicons from *S. elaeagnifolium* was obtained and deposited in GenBank as accession numbers KF990598, KF990599 and KF990600. The nucleotide sequence of Tunisian TYLCV isolates was 91.2 to 98.9% identical and shared 91 to 98.3% identity with a TYLCV isolate from Turkey (AJ867487). Multiplex PCR (Davino *et al.*, 2008) was further used to identify virus species with the amplification of a 570 bp fragment for TYLCV and a 800 bp fragment for TYLCSV. Results showed two *S. elaeagnifolium* and four tomato plants infected with TYLCV or TYLCSV, and two *S. elaeagnifolium* and one tomato plant infected with both viruses. To the best of our knowledge, this is the first report of *S. elaeagnifolium* as a natural host of TYLCV and/or TYLCSV in Tunisia. These findings suggest *S. elaeagnifolium* as a reservoir for tomato yellow leaf curl virus disease.

Davino S., Davino M., Accotto G.P., 2008. A single-tube PCR assay for detecting viruses and their recombinants that cause tomato yellow leaf curl disease in the Mediterranean basin. *Journal of Virological Methods* **147**: 93-98.

Mnari-Hattab M., Zammouri S., Pellegrin F., Gauthier N., 2014. Natural occurrence of begomovirus recombinants associated with tomato yellow leaf curl disease co-existing with parental viruses in tomato crops and weeds in Tunisia. *Journal of Plant Pathology* **96**: 195-200.

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