

## DISEASE NOTE

**FIRST RECORD OF *FUSARIUM*  
*OXYSPORUM* F.SP. *RADICIS* -  
*LYCOPERSICI* IN MALTA****A. Porta-Puglia and D. Mifsud**

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Crown and root rot symptoms were observed on tomato (*Lycopersicon esculentum* L.) F1 hybrid Thomas (S. & G., Novartis Seeds B.V., Enkhuizen, Holland) in a greenhouse at Wardija, Malta, in November 2004. Symptoms included stem cankers starting mostly at the soil level and extending for 5-20 cm above it. Most severely affected plants wilted and died. *Fusarium oxysporum* was constantly isolated from rotten roots and crowns and from stem cankers. Colonies of a crown isolate, grown on potato dextrose agar (PDA), were suspended in sterile tap water by a blender. Ten tomato seedlings ('Thomas', growth stage: 6-8 leaves) were inoculated by root immersion in the inoculum suspension (concentration:  $2.5 \cdot 10^6$  CFU ml<sup>-1</sup> on PDA) for 5 min and were successively transplanted in 16 cm diameter plastic pots containing a mixture (1:1:1 w/w/w) of soil, sand and peat. Ten seedlings (controls) were treated in the same way with sterile tap water. All the plants were kept under glasshouse conditions (15±5°C), regularly watered, and examined after one month. The inoculated plants showed typical symptoms of crown and root rot, including 1-3 cm cankers, and *F. oxysporum* was re-isolated from all of them. The controls were healthy, and the attempts to isolate the pathogen from them failed. The morphology of the fungus and the symptoms, observed both on the crop and after artificial inoculation, coincided with those described for *F. oxysporum* Schlecht. f.sp. *radicis-lycopersici* Jarvis and Shoemaker (FORL) (Jarvis and Shoemaker, 1978; Brayford, 1996). Therefore we conclude that FORL was the causal agent of the disease reported above. This is the first record of FORL in Malta.

Jarvis W.R., Shoemaker R.A., 1978. Taxonomic status of *Fusarium oxysporum* causing foot and root rot of tomato. *Phytopathology* **68**: 1679-80.

Brayford D., 1996. *Fusarium oxysporum* f.sp. *radicis-lycopersici*. *Mycopathologia* **133**: 61-63.