DISEASE NOTE

FIRST RECORD OF COLLETOTRICHUM COCCODES ON POTATO IN MALTA

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In April 2005 black dot symptoms were observed in a field at Qrendi, Malta, on plants of potato (Solanum tuberosum L.) cv Derby at tuber maturation growth stage. Affected stems appeared prematurely wilted, and abundant sclerotia were present on their base and on the roots. Colletotrichum coccodes (Wallr.) Hughes (Porta-Puglia, 1986) was constantly isolated from crowns and roots. Colonies of one isolate, grown on potato dextrose agar (PDA), were suspended by a blender in sterile tap water (concentration: 2.1\times10^{6} \text{CFU ml}^{-1} \text{on PDA}). Six potato tubers ('Derby', at incipient germination) and the roots of 6 tomato seedlings ('Thomas', growth stage: 5 leaves) were soaked into the fungal suspension for 10 min and successively transplanted in 16 cm diameter plastic pots containing a mixture (1:1:1 w/w/w) of soil, sand and peat. Twenty-five ml of fungal suspension were distributed on the soil in each pot after planting. Control plants (6 per host) were treated in the same way with sterile tap water. The plants were kept under glasshouse conditions (22\pm5\degree C) and regularly watered. The inoculated plants showed growth reduction, yellowing and wilting. When pulled up 2 months after inoculation root and crown rot were present on all of them. Wilting, crown lesions and growth reduction were more severe on tomato. Typical black dots (sclerotia) were present on the diseased tissues of both hosts. C. coccodes was re-isolated from roots, crowns and stem bases of all the inoculated plants previously washed and surface disinfested with sodium hypochlorite (2\% active Cl, 5 min treatment). No symptoms were present on control plants and attempts to isolate the pathogen from them failed. This is the first record of C. coccodes on potato in Malta.


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