Disease Note

BOTRYTIS CINEREA, NEW PATHOGEN INFECTING OREGANO CROPS IN ARGENTINA

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In October 2013 plants with necrotic leaves and cankers on the stems were observed in oregano crops (*Origanum vulgare* ssp. *hirtum*) at Tres Esquinas (Mendoza, Argentina). The necrosis had a basipetal progress, affected the center of the bush and, in some cases, resulted in the death of the plant. Following isolation on potato dextrose agar (PDA), effuse greyish to brown colonies developed, which produced irregular black sclerotia. The mycelium was branched, septate, hyaline to brown-coloured and produced conidiophores bearing one-celled, egg-shaped and hyaline conidia, grouped in glistening heads. Based on these morphological traits, the fungus was tentatively catalogued as *Botrytis* sp. (Ellis, 1971), until molecular identification was performed. Its pathogenicity was tested by inoculating oregano stems with agar plugs from fungal colonies, while control plants were inoculated with sterile agar plugs. The plants were covered with a plastic bag for 24 h. After 5 days, the field syndrome was reproduced in inoculated plants, which showed an incipient necrosis of the stem and wilting of the leaves. From these plants the pathogen was successfully re-isolated, fulfilling Koch's postulates. Molecular identification was carried out by PCR amplification using the primer pair ITS1/ITS4 (White *et al*., 1990). The amplified product was purified, sequenced (GenBank accession No. KT921335) and compared with the equivalent sequences from database. A complete match score was found with *Botrytis cinerea*, confirming the identity of the pathogen. *B. cinerea* was recorded from Italy as a pathogen of *Origanum majorana* (Pensa *et al*., 2007). To the best of our knowledge this is the first report of *B. cinerea* affecting oregano crops in Argentina.

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Disease Note

POWDERY MILDEW CAUSED BY *GOLOVINOMYCES MAGNICELLULATUS* ON *PHLOX PANICULATA* IN ITALY

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During summer and the following autumn 2015, about a hundred plants of *Phlox paniculata* growing in a garden near Biella (northern Italy) showed symptoms and signs of an unknown powdery mildew. Leaves, stems and inflorescences were covered by a white mycelium that produced hyaline, elliptical conidia measuring 28-35 × 16-21 (mean: 31 × 18) µm. Conidia germinated apically with short, rather clavate germ tubes. Fibrosin bodies were absent. Many chasmothecia, 100-162 (mean: 130) µm in size, formed dark patches on all the affected tissues, particularly on the upper leaf surface. Chasmothecia contained 8-15 shortly stalked, 2-spored asci measuring 44-85 × 24-40 (mean: 62 × 29) µm. Spores were ellipsoid to subglobose and measured 21-30 × 14-21 (mean: 25 × 18) µm. The ITS region of rDNA extracted from fruiting bodies was amplified using the primers ITS1/ITS4 (Altschul *et al*., 1997) and sequenced (GenBank accession No. KT953357). The 510 bp amplicon had 99% homology with the sequence of *Golovinomyces magnicellulatus* (AB769441.1), confirming the relationship between *G. magnicellulatus* and *P. paniculata* as recently reported in the phylogenetic analysis of the genus *Golovinomyces* (Takamatsu *et al*., 2013). In pathogenicity tests, leaves affected by powdery mildew were gently pressed onto three healthy plants of *P. paniculata,* which were then were maintained at temperatures ranging from 20 to 26°C. Three non-inoculated plants were used as controls. Fifteen days post inoculation, the first symptoms appeared only on inoculated plants. *G. magnicellulatus* has been reported on *P. paniculata* in Great Britain (Jones and Baker, 2007). This is the first report of *G. magnicellulatus* on *P. paniculata* in Italy.

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