DISEASE NOTE

FIRST REPORT OF A LEAF SPOT DISEASE CAUSED BY SCLEROTIUM ROLFSII ON JASMINIUM MULTIFLORUM IN INDIA

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Jasminum multiflorum is an important crop grown extensively in parts of Southern India. A characteristic leaf spot disease was observed during field surveys conducted in 2013-2015. The disease incidence ranged from 18 to 23% over about 45 cropped hectares. Water-soaked lesions (2-8 mm) appeared initially on the basal leaves followed by the development of large necrotic spots (0.5-1.5 cm) with sclerotic bodies at the center of the necrotized areas. Affected leaf tissues were surface-sterilized with 2% NaOCl, transferred onto potato dextrose agar (PDA) and incubated at 28±2°C. Fungal colonies with dense, aerial whitish cottony mycelium with uniformly globoid sclerotia (1-2.2 mm) were observed after 10-12 days of incubation. Based on the morpho-cultural characteristics, the fungus was identified as Sclerotium rolfsii (Mordue, 1974). The identification was confirmed by PCR amplification of ITS-rDNA using ITS1/ITS4 primers (White et al., 1990). The PCR product was sequenced directly and the sequence analysis revealed 100% homology with S. rolfsii (GenBank accession No. KP412469.1). A representative sequence of S. rolfsii was deposited in GenBank (accession No. KT768140.1). Pathogenicity tests were conducted on 30 healthy leaves by inoculating 2-3 sclerotia from 12 days-old culture. The appearance of necrotic leaf spots was noticed on 22 inoculated leaves seven days post inoculation. No such symptoms were observed on control leaves challenged with water. The fungal pathogen was re-isolated on PDA and its identity confirmed. To the best of our knowledge, this is the first report on the occurrence of S. rolfsii causing leaf spot of J. multiflorum in India.


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DISEASE NOTE

FIRST REPORT OF PSEUDOMONAS SYRINGAE pv. ACTINIDIAE ON ACTINIDIA spp. CULTIVATED IN CAMPANIA (SOUTHERN ITALY)

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To ascertain the presence of Pseudomonas syringae pv. actinidiae in Campania (southern Italy) field surveys were carried out since 2011 in all areas of kiwifruit (Actinidia delicosa and A. chinensis) cultivation. In some orchards of Caserta, Benevento, Napoli and Salerno provinces, leaf spotting and twig wilting were observed, possibly indicating the occurrence of the pathogen, but no cankers along the trunk and main branches and plant collapse were seen. Generally, the incidence of these symptoms varied from 3% to 20%. Isolation from symptomatic organs and identification procedures were done according to Ferrante and Scortichini (2009, 2010). In parallel, with all samples, duplex PCR (Gallelli et al., 2011) and real-time PCR (Gallelli et al., 2014) were directly applied to plant tissues. The reference P. syringae actinidiae CRA-FRU 8.43 strain (Ferrante and Scortichini, 2010) was used as positive control. Pathogenicity tests were carried out on pot-grown, one-year-old plants of A. delicosa cv. Hayward with representative isolates of P. syringae actinidiae obtained from all of the provinces (Ferrante and Scortichini, 2009). Bacterial isolates from all provinces were identified by PCR as P. syringae actinidiae. In addition, the successful inoculation of cv. Hayward demonstrated the pathogenicity of the representative isolates. The occurrence of the pathogen was also confirmed by the detection techniques applied directly to plant samples. P. syringae actinidiae was isolated in Napoli and Benevento provinces from cv. Hayward; in Salerno province from cvs Hayward and G3 Gold, and in Caserta province from cvs. Hayward, JinTao and Soreli.


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