

DISEASE NOTE

FIRST REPORT OF LEAF BLIGHT CAUSED BY *MACROPHOMINA PHASEOLINA* ON *JASMINIUM MULTIFLORUM* IN INDIA

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Jasminium multiflorum is an important flower crop grown extensively in South India. A characteristic leaf blight symptom was observed during a field survey conducted during September-December, 2014. The disease incidence was 16% over about 62 ha of crop fields visited. The disease started with small necrotic spots (2-5 mm) at the margin of leaf the lamina to spread all along the leaf midrib. Pycnidia were observed on the blight-affected leaves. Symptomatic leaf fragments (0.5 cm) were surface-sterilized with 2% NaOCl, placed on potato dextrose agar (PDA) and incubated at $28 \pm 2^\circ\text{C}$. Fungal colonies formed many dark sclerotia ($65\text{--}152 \times 35\text{--}98 \mu\text{m}$) after 10-12 days of incubation. Pycnidia that developed on necrotic tissues measured $182\text{--}210 \mu\text{m}$ and contained single-celled conidia ($15\text{--}19\text{--}5\text{--}7 \mu\text{m}$). Based on these traits, the fungal pathogen was identified as *Macrophomina phaseolina*. This identification was confirmed by PCR amplification of ITS-rDNA using ITS1/ITS4 primers (White *et al.*, 1990). The PCR product was sequenced directly (GenBank accession No. KT7681134.1) and the sequence analysis revealed 99% homology with *M. phaseolina* (JX945170.1 and FJ395221.1). Pathogenicity tests were conducted on 30 healthy 70-days-old plants by foliar application of conidial suspension (1×10^5 conidia/ml). Leaf blight symptoms were noticed on 16 inoculated plants 10 days post-inoculation. No symptoms were observed on control leaves inoculated with water. The fungus was re-isolated on PDA and its identity was confirmed. To the best of our knowledge, this is the first report on the occurrence of leaf blight disease on *J. multiflorum* caused by *M. phaseolina* in India.

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OCCURENCE OF *APPLE CHLOROTIC LEAF SPOT VIRUS* IN APPLE AND QUINCE IN SOUTHERN IRANE. Alemzadeh¹, A.T. Katsiani², K. Efthimiou² and N.I. Katis²

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Apple chlorotic leaf spot virus (ACLSV, genus *Trichovirus*, family *Betaflexiviridae*) is a widespread virus that naturally affects pome and stone fruit as well as other *Rosaceae* species. Recently, the virus has been reported in apple trees in Northern Iran whereas quince and pear were found to be ACLSV-free (Keshavarz and Shams-Bakhsh, 2015). During a survey, conducted from April to September of 2013 in Shiraz area (Southern Iran), leaf samples from two quince trees exhibiting chlorotic leaf spots and fruit deformation and from fifteen symptomless apple trees, were collected. ACLSV presence was ascertained serologically by DAS-ELISA using specific polyclonal antibodies (Dr. T. Candresse, INRA, Bordeaux) and by an ACLSV-specific nested RT-PCR (Katsiani *et al.*, 2014) using the primer pair CLSup and CLSdo (Mathioudakis *et al.*, 2010) targeting close to the 3' end of the coat protein (CP) gene sequence. All 17 tested samples were positive with both methods and direct sequencing of two amplified products (374 bps), one from quince and one from apple, confirmed the identification of ACLSV (accession Nos. KP172503 and KP172502, respectively). As no Iranian ACLSV sequences were available in the database, BLAST comparison with ACLSV sequences from other countries retrieved from GenBank disclosed that the herein obtained sequences from apple and quince isolates share the highest identity at the nucleotide level with isolates FN386786 from Greece (94.4%) and AB326228 from Japan (94%), respectively. Nucleotide sequence comparison among the Iranian isolates revealed a 99.4% similarity. ACLSV association with the observed symptoms in quince trees remains to be determined, as the diseased trees were not tested for the presence of other common viruses such as *Apple stem pitting virus* (ASPV). To our knowledge this is the first report of ACLSV in quince in Iran.

Katsiani A.T., Maliogka V.I., Candresse T., Katis N.I., 2014. Host-range studies, genetic diversity and evolutionary relationships of ACLSV isolates from ornamental, wild and cultivated *Rosaceous* species. *Plant Pathology* **63**: 63-71.

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