Disease Note

FIRST REPORT OF LEAF SPOT CAUSED BY *ARTHRINIUM ARUNDINIS* ON ROSEMARY IN IRAN

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During a survey in 2013, symptoms of brown leaf spots on rosemary *(Rosmarinus officinalis*) were observed in greenhouses in Hamedan province, Iran. Small fragments of infected tissue were taken from the margins of leaves and were placed on potato dextrose agar (PDA) for 7 days under 12/12 h alternating cycle of light and dark at temperature of 25°C. Isolates on PDA medium were slow-growing, grayish white with floccose whitish aerial mycelium that covered entire PDA plates. Sporulation generally localized in some dark spots in aerial mycelium. Mycelium consisted of smooth, hyaline, branched, septate hyphae, 2 to 3 µm diameter. Conidiophores were erect, septate, smooth, hyaline to brown and very different in shape and size but about 5 µm in diameter and reduced to conidiogenous cells. Conidiogenous cells were pale brown, smooth, ampulliform, 6 to 10 µm long; the apical neck was 3 to 4 µm long, basal part 5 to 6 µm long. Conidia were 1-celled, dark brown, smooth, lemon-shaped to spherical, 5 to 7 µm in diameter, 2 to 4 µm wide with a germ slit at senescence stage. Based on morphological characteristics, the pathogen was identified as *Arthrinium arundinis* (Corda) Dyko & B. Sutton (Crous and Groenwald, 2013). The internal transcribed spacer regions (ITS1, ITS2 and 5.8s gene) of rDNA were amplified with the primers ITS1/ITS4 and sequenced (Crous and Groenwald, 2013). The sequence was deposited in GenBank (Accession No. KM035852) and in BLAST search showed 99% similarity with sequences belonging to *A. arundinis* in accordance with morphological identification. In order to confirm Koch's postulates, pathogenicity tests were done twice on fully developed plants. Rosemary leaves were sprayed with conidial suspension (10^5 spores/ml), while control plants were sprayed with sterile distilled water. After inoculation, rosemary plants were kept in a growth chamber at 25°C. One week after inoculation, leaf spot symptoms were observed on the inoculated leaves and *A. arundinis* was successfully reisolated from artificially infected plants. To our knowledge, this is the first report of leaf spot caused by *A. arundinis* on *R. officinalis* in Iran.

Chen K., Wu X.Q., Huang M.X., Han Y.Y., 2014. First report of brown culm streak of *Phyllostachys praecox* caused by *Arthrinium arundinis* in Nanjing, China. *Plant Disease* **98**, 1274.

Crous P.W., Groenewald J.Z., 2013. A phylogenetic re-evaluation of *Arthrinium*. *IMA Fungus* **4**: 133.

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Disease Note

FIRST REPORT OF DIEBACK OF OLIVE TREES CAUSED BY *NEOFUSICOCCUM AUSTRALE* IN TUNISIA

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In spring 2011, a severe disease resulting in tree dieback of olive tree cv Chemlali was observed in an orchard in Hencha (south east of Tunisia). Symptomatic trees exhibited abundant dead twigs and wilted leaves. On potato dextrose agar (PDA), a fungus isolated from symptomatic twigs and branches was initially white becoming glaucous grey to greenish grey on the upper surface. The fungus was identified as *Neofusicoccum australe*. based on morphological characteristics and analysis of the ITS gene region (White *et al*., 1990). The sequence analysis of ITS region of the isolate revealed 100% homology with a reference sequence of *N. australe* (Strain E54 ML, accession No. KF702388.1). Pathogenicity tests were conducted on 10 two-year old olive trees cv. Chemlali. A mycelial plug was put in a shallow wound on the stem of each plant. Control plants were inoculated with sterile PDA plugs. All plants were kept in a greenhouse. Two months after the inoculation, symptoms appeared with stems showing brown color. No symptoms developed on the control plants. *Neofusicoccum* was isolated from inoculated stems, thus fulfilling Koch's postulates.

N. australe has been reported as responsible for cordon grapevine dieback in Italy (Linaldeddu *et al*., 2010). To the best of our knowledge, this is the first report of *N. australe* as a causal agent of dieback of olive trees in Tunisia.

Linaldeddu B.T., Scanu B., Schiaffino A., Serra S., 2010. First report of *Neofusicoccum australe* associated with grapevine cordon dieback in Italy. *Phytopathologia Mediterranea* **49**: 417.

White T.T., Bruns T., Lee S., Taylor J., 1990. Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics. In: Innis M.A., Gelfand D.H., Sninsky J.J., White T.J. (eds). PCR protocols. A guide for Methods and Application, pp. 315-322. Academic Press, San Diego, CA, USA.

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