



First report of leaf blight of arborvitae (*Thuja orientalis*) caused by *Pestalotiopsis* sp. in Turkey

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Received: 27 Jan 2011. Published: 24 Mar 2012. Keywords: fungal plant disease

Arborvitae (*Thuja orientalis*) is economically the most important ornamental plant in Turkey. In the spring of 2008, a leaf disease was observed on 80-90% of arborvitae seedlings in a commercial nursery in Sakarya province (northwest Turkey). Initial symptoms included chlorosis of the youngest leaves that later turn brown and appear scorched. A fungus was consistently isolated onto potato dextrose agar (PDA), producing numerous black acervuli on PDA (Fig. 1). Conidia produced in culture were five-celled, 22.8-29.4 x 4.2-7.8 µm, with dark median cells, four transverse septa, two to three (usually three) apical appendages 19.5-27.5 µm long, and basal appendage 6.9-9.9 µm long (Fig. 2). Based on these morphological features the fungus was identified as a member of the genus *Pestalotiopsis* (Sutton, 1980). This was confirmed by sequence analysis of the ribosomal DNA internal transcribed spacers 4 and 5 following amplification using primers ITS4 and ITS5 (GenBank Accession No. HQ906885). Pathogenicity tests were performed on two-year-old arborvitae plants. A conidial suspension (1×10^6 conidia/ml) was misted onto young leaves with a hand-held sprayer until run off. Control plants were similarly misted with sterilised water. Plants were covered with polyethylene bags and incubated for four days at 24°C. Disease symptoms identical to those seen in the field were observed on young leaves after two weeks. Control plants remained symptomless. *Pestalotiopsis* sp. was consistently isolated from the infected leaf regions, confirming Koch's postulates. Sequence analysis indicates that this isolate was not *P. guepinii* which has been reported in Turkey on hazelnut, walnut (Karaca & Erper, 2001) and *Pistacia lentiscus* var. *chia* (Göre *et al.*, 2010). To our knowledge, this is the first report of *Pestalotiopsis* sp. on *Thuja orientalis* in Turkey.

See also: Editors' note on identification of *Pestalotiopsis* spp. ([New Disease Reports 25, 15](#)).

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Figure 1



Figure 2

To cite this report: Ozan S, Kurbetli I, Değirmenci K, Tülek S, 2012. First report of leaf blight of arborvitae (*Thuja orientalis*) caused by *Pestalotiopsis* sp. in Turkey. *New Disease Reports* **25**, 14. [doi:10.5197/j.2044-0588.2012.025.014]

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