

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

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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 x 10⁶ 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 Thuya orientalis in Turkey.

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

References

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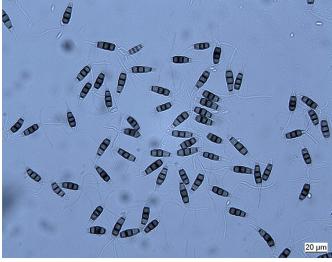


Figure 2

Figure 1

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