



# First report of *Neopestalotiopsis rosae* causing leaf spot and crown rot of strawberry in Turkey

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In June 2021, leaf spot and crown rot symptoms were observed on approximately 4% of strawberry (*Fragaria × ananassa* Duch.) plants surveyed in a 6 decares field in Mersin province (36°22'27.1"N 34°00'25.8"E), Turkey. Symptoms included wilting, necrotic lesions with black acervuli on leaves, dark-brown necrosis on stolons and fruits, root rot and crown rot. The crown and stolon tissues from symptomatic 10 plants were surface sterilized in 1% sodium hypochlorite for 2 min, placed onto potato dextrose agar (PDA) and incubated at 24 °C. Fungal colonies from all samples produced white cottony mycelium with abundant black acervuli distributed in concentric rings 10 days after planting. Conidia were fusiform to ellipsoid, 4-septate, average 24.1 × 7.3 µm (n=30) in size. The basal cell was hyaline, thin-walled, 4–6 µm long, conic to obconic with a truncate base, and with a short oblique appendage. The three median cells were doliiform and brown with darker septa. The apical cell was hyaline, cylindrical, thin walled, 3–5 µm long, and with 3–4 tubular apical appendages. Those morphological features matched those of *Neopestalotiopsis rosae* (Maharachchikumbura et al. 2014). Identity of a representative isolate was confirmed by sequencing of the internal transcribed spacer (ITS) and translation elongation factor 1-α (EF1-α) loci (White et al. 1990; O'Donnell et al. 2010). Sequences were deposited in GenBank (ITS: ON366984; EF1α: ON381185) and proved to 100% match

in BLAST searches with *Neopestalotiopsis rosae* strain CBS 124,745 (GenBank Accession Nos. ITS: KM199360; EF1-α: KM199524). Phylogenetic analysis with concatenated sequences further confirmed the identification. To fulfill Koch's postulates, a spore suspension of 2 × 10<sup>6</sup> spore/mL was sprayed on six strawberry seedlings at the 3 to 4 leaf stage until run-off. Inoculated plants were incubated for 7 days at 23 °C in moist chambers. All inoculated plants showed typical dark-brown necrotic lesions. The fungus was re-isolated and re-identified. No symptoms were observed on control plants. To our knowledge, this is the first report of *Neopestalotiopsis rosae* causing leaf spot and crown rot disease of strawberry in Turkey.

## Declarations

**Ethical statement** This article does not contain any studies with human participants or animals.

**Conflict of interest** All authors declare that they have no conflict of interests.

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