



Adenium obesum: a new host for *Nigrospora sphaerica*

Jéssica Maria Israel de Jesus¹ · Kássia Lorrany Marques de Paula¹ · Ana Beatriz Lemes Rodrigues¹ · Marcos Gomes da Cunha¹

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Desert rose (*Adenium obesum*) is one of the main ornamental plants species grown in Brazil, largely due to its beautiful flowers, sculptural morphology and drought resistance (Varella et al. 2015). However, phytosanitary problems can affect its cultivation and appearance, generating losses and/or limiting production. This study aimed to report the occurrence of the *Nigrospora* fungus causing leaf spots in desert rose.

A. obesum leaves exhibiting chlorotic spots initially on the edge of the leaf blade that evolved to necrotic lesions, were observed in plants in the city of Goiânia in the state of Goiás, Brazil. The indirect isolation through fragments of the edge of the symptomatic leaf lesions was performed in Potato Agar Dextrose (PDA) medium. Inoculation was carried out with mycelial disks (5 mm) deposited onto healthy leaves, while controls were inoculated with disks containing only PDA. The test was performed in five repetitions and repeated twice, with daily symptom assessment, followed by reisolation. The DNA of pure cultures was extracted and submitted to PCR for partial amplification of the ribosomal gene (ITS1, 5.8S rDNA and ITS2 regions) using the primers ITS1 and ITS4. The PCR products were sequenced. The symptoms were reproduced in inoculated plants, initially in the form of small greyish white to brown lesions that subsequently increased in size. Reisolation confirmed the similarity of the inoculated and reisolated organisms. The fungal colonies were initially white,

later becoming grey to brown, with spherical conidia (12.5 to 20 × 10 to 15 μm). The morphological characteristics of the isolates and colonies are in line with those described for the genus *Nigrospora* (Barnett and Hunter 1998; Mason 1927).

The amplified and sequenced region of the ribosomal gene was compared with sequences from GenBank using the BLAST nucleotide searching algorithm. The isolate showed 99.04% similarity with the *N. sphaerica* species. The sequence was deposited in GenBank (MK680037.1). Based on the morphological characteristics and nucleotide similarity, *N. sphaerica* was identified as the causal agent of necrotic spots in desert rose, a new host for the pathogen.

References

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✉ Jéssica Maria Israel de Jesus
jessicamariaisrael@gmail.com

¹ Center for Phytopathology Research, Universidade Federal de Goiás, Samambaia Campus, Goiânia, Goiás state, Brazil