
Colletotrichum sansevieriae on *Sansevieria trifasciata* – a report from Madhya Pradesh, India

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Gautam AK, Avasthi S, Bhadauria R 2012 – *Colletotrichum sansevieriae* on *Sansevieria trifasciata* – a report from Madhya Pradesh, India. Plant Pathology & Quarantine 2(2), 190–192, doi 10.5943/ppq/2/2/12

An infection was noticed on leaves of *Sansevieria trifasciata* in 2011 at Jiwaji University Campus, Madhya Pradesh, India. Morphological, cultural and microscopic characteristics resulted in identification of the causal agent as *Colletotrichum sansevieriae*. This is the first report of *C. sansevieriae* on *S. trifasciata* from Madhya Pradesh, India.

Key words – *Colletotrichum sansevieriae* – India – leaf disease – *Sansevieria trifasciata*

Article Information

Received: 7 November 2012

Accepted: 9 November 2012

Published online 29 November 2012

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Introduction

Sansevieria trifasciata, a member of the Agavaceae, is a common ornamental plant of cactus and succulents category native to tropical West Africa. The plant is evergreen, herbaceous and perennial, and is extensively used as hedge plant throughout India. It used as an ornamental, both in interior and exterior decoration and as a landscape foliage plant. The leaves usually range between 70–100 cm long and 5–6 cm wide. The genus contains more than 60 species with wide distribution in Africa, Arabia and India (Palmateer et al. 2012). All parts of the plant are poisonous if ingested and skin irritation or allergic reaction may occur during plant handling. An infection was noticed on leaves of *S. trifasciata* in 2011

at Jiwaji University campus, Madhya Pradesh, India.

Materials and Methods

The infected leaves of *Sansevieria trifasciata* were collected in 2011 from Jiwaji University Campus (M.P.), and taken to the laboratory for further experimentation. A morphological analysis of the disease on leaves was carried out.

The leaves showing the typical disease symptoms were cut into small fragments, surface sterilized with 0.5% sodium hypochlorite (NaOCl), plated on potato dextrose agar (PDA) media and incubated at 25±2° C for 6-7 days. Fungi that grew from lesions were subcultured on PDA and pure



Fig. 1 – Leaf lesions from natural infection

cultures were maintained for further analysis. Microscopic and cultural examinations were carried out for pathogen identification.

Healthy leaves were pin-pricked and spray inoculated with a spore suspension (10^5 conidia/ml) of the pathogen. Leaves sprayed with sterile distilled water served as a control. Leaf spots similar to the original symptoms developed on all inoculated leaves after 5-7 days and the pathogen was consistently re-isolated and compared with the original fungus.

Results and Discussion

The infection started from the tip and progressed down the leaves. Both young and mature leaves were found affected. Complete drying of diseased leaves was observed when the disease advanced (Fig. 1). Closer examination of mature lesions revealed presence of brownish black acervuli that were characteristic of *Colletotrichum* species. Further studies of morphological and cultural characteristics resulted in identification of the causal agent as *Colletotrichum sansevieriae* (Nakamura et al., 2006). Developing colonies on PDA were greyish white, circular, woolly or cottony in appearance. Conidia were straight, cylindrical, and varied from $12\text{-}30.5 \times 4.5\text{-}8.5$ μm in size. Hyaline with simple, short medium sized mycelium with erect conidiophores was observed in microscopic examinations.

Colletotrichum sansevieriae was previously reported to cause anthracnose disease on *S. trifasciata* plants in Japan (Nakamura et al. 2006) and Australia (Aldaoud et al. 2011). Recently, the pathogen was reported on *S. trifasciata* from Florida (Palmateer et al. 2012). Other species of *Colletotrichum* causing disease on different plants have been reported from India (Avasthi et al. 2011, Gautam et al. 2012 a&b). There have been no previous reports of *Colletotrichum sansevieriae* on *Sansevieria trifasciata* in India. Thus, this is the first report

of *Colletotrichum sansevieriae* on *Sansevieria trifasciata* from Madhya Pradesh, India.

Acknowledgement

The authors gratefully thank their respective organisations, Abhilashi Institute of Life Sciences, Mandi, Himachal Pradesh and Jiwaji University, Gwalior, Madhya Pradesh, India for constant support throughout the study.

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