

Research Article**Characterization and Management of Black Leaf Spot of Papaya Caused by *Asperisporium caricae* (Speg.) Maubl.****B Anjaneya Reddy, V Devappa and R Munilakshmi**

¹College of Horticulture, UHS campus, GKVK, Bengaluru, *Division of Plant Pathology, IIHR, Hesaraghatta, Bengaluru-560 089. Email:arb_agri@yahoo.co.in

Abstract

Papaya is an important fruit crop both in tropical and subtropical regions of world. The crop is prone to infection by several diseases and of all black leaf spot of is an emerging disease hindering the cultivation of papaya as it infects both leaves and fruits. The survey conducted in Karnataka implied the highest disease severity on leaves and fruits was recorded at Gopalapura village in Srinivaspura taluk in Kolar district and the lowest disease severity on leaves and fruits at Kamaluru in Chikkaballapura district and at Nayakranahalli in Bangarpete taluk of Kolar district, respectively. The pathogen produced conidiophores which are olivaceous brown, geniculate, smooth in dense fascicle with prominent conidial scars at the tip, up to 50-52 μm long $\times$ 6-9 μm wide. Conidia were ellipticovoid, rounded at the top; one or two septate, measuring from 14-30 $\times$ 5-10 μm in length. Molecular confirmation of the causal organism was done through PCR amplification and sequencing of ITS region. *In-vivo* evaluation fungicides revealed, foliar application of hexaconazole @ 0.1 per cent proved to be highly effective in arresting spread of the disease.

Key words: *Asperisporium caricae*, black leaf spot, ITS (Internal transcribed spacer), management

Citation: Anjaneya Reddy B, Devappa V and Munilakshmi R. 2018. Characterization and management of black leaf spot of papaya caused by *Asperisporium caricae* (Speg.) Maubl. *J Mycol Pl Pathol* 48(4): 408–416.