

## COMPATIBILITY OF ENTOMOPATHOGENIC FUNGI WITH BUPROFEZIN FOR MANAGEMENT OF BROWN PLANTHOPPER, *NILAPARVATA LUGENS* STAL (DELPHACIDAE: HEMIPTERA) IN RICE

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**Abstract:** Compatibility between Buprofezin 25SC and entomopathogenic fungi studies were conducted at IIRR (Indian Institute of Rice Research), Hyderabad. Buprofezin 25 SC was tested at three concentrations viz., recommended concentration (RC), sub lethal concentration (0.5 RC) and more than recommended concentration (1.5 RC) against three entomopathogenic fungi viz., *Beauveria bassiana*, *Metarhiziumanisopliae* and *Lecanicilliumlecanii* (*Verticilliumlecani*) by using poison food technique under laboratory conditions. Buprofezin 25 SC was harmless to all three tested entomopathogenic fungi at 0.5 RC and RC recorded 5.53 to 15.96 per cent inhibition of the entomopathogenic fungi. At 1.5 RC buprofezin was harmless to *B. bassiana* (19.57 per cent inhibition in growth of the fungus) and slightly harmful to *M. anisopliae* and *L. Lecanii* recorded 20.21 and 23.40 per cent reduction in growth of the fungus respectively. Combined use of imidacloprid with entomopathogenic fungi at recommended concentrations against BPH under glasshouse conditions indicating buprofezin alone could cause 55.00 per cent mortality in BPH. Buprofezin combined with entomopathogenic fungi increased the mortality of BPH compared to buprofezin alone spray.

**Keywords:** *Beauveria*, Brown planthopper, Entomopathogenic fungi, *Lecanicillium*, *Metarhizium*, *Nilaparvata lugens*

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