**SHORT COMMUNICATION**

# STUDIES ON ANTIXENOSIS MECHANISM OF ADVANCED RICE GENOTYPES AND BIO-EFFICACY OF VARIOUS BIOPESTICIDES AND BOTANICALS AGAINST BROWN PLANTHOPPER

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**Abstract:** The bioefficacy of three biopesticide namely, *Beauveriabassiana, Metarhiziumanisopliae, Lecaniciliumlecanii* and two botanicals namely, Neem seed kernel extract and Pongamia leaf extract along with Buprofezin @25% SC as check insecticide and one control treatment were evaluated on 1 month old plants of susceptible genotype State Unified Varietal Trial -4-11. After the 1st week of treatment, plants treated with Buprofezin showed significant reduction whereas there was a negligible reduction in nymph population of the plants that were treated with *Metarhiziumanisopliae, Beauveriabassiana, Lecaniciliumlecanii* , Neem seed kernel extract and Pongamia leaf extract. The 2nd and 3rd week onwards, the plants treated with NSKE registered reduction in nymphs which was at par with Buprofezin. Pongamialeaf extract also showed significant reduction than the three entomofungal bio pesticides. Out of the three entomofungalbiopesticides, *Metarhiziumanisopliae* was found to be more effective than *Beauveriabassiana*and *Lecaniciliumlecanii* . It was hence concluded that botanicals are better prospects for brown planthopper reduction than biopesticides (*M. anisopliae ,B. bassiana and L. lecanii*) which are only able to suppress the brown planthopper population by about 8-17%.

**Keywords:** Brown planthopper, Biopesticides, Rice

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