

**Synergistic Effect of Piperonyl Butoxide, Triphenyl Phosphate and Sesame Oil on Malathion and Deltamethrin Resistant Bapatla Strain of *Rhyzopertha dominica* in Andhra Pradesh**

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**ABSTRACT**

A laboratory experiment was carried out in the Department of Entomology to know the synergistic activity on commonly used insecticides. The synergists such as PBO, TPP and sesame oil showed synergistic factors of 10.85, 27.12 and 0.47 at LC<sub>50</sub> and 5.97, 6.68 and 1.95 at LC<sub>99.9</sub> level respectively with malathion. The corresponding synergistic values for deltamethrin were 34.50, 43.12 and 6.05 at LC<sub>50</sub> and 14.07, 8.97 and 3.51 at LC<sub>99.9</sub> level. The levels of resistance to malathion and deltamethrin are brought down significantly with all the three synergists viz., PBO, TPP and sesame oil.

Key words: *Deltamethrin, PBO, TPP, Sesame oil, Synergists, Malathion, Rhyzopertha dominica.*