

Abstract:

Pyrethrins and Rotenoids extracts from *Chrysanthemum cinerariaefolium* and *Tephrosia vogelii* plants respectively were combined at various ratio mixtures and tested against adult cockroach *Americana periplaneta* for their efficacy. A mortality rate of 86% in 200 minutes with a synergistic ratio mixture of 28.5:1 w/w was established.

The mixture was found to have an observed LC₅₀ of 0.23mg/g and a theoretical LC₅₀ of 0.92mg/g calculated from the individual Pyrethrins and Rotenoids extracts. The synergism expressed as co-toxicity coefficient CC, was found to be 4.

The photodegradation of Rotenoids in the combination was found to have a half life of t_{1/2} of 6.1hrs compared to that of Rotenone and Pyrethrins of 3hrs respectively.