

**B-20 Studies on the effect of Lakada (*Gardenia cramerii*) and insecticide (Dimethoate) on the aphid (*Aphis craccivora*) predator (*Menochilus sexmaculatus*) (Coleoptera : Coccinellida)**

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Coccinellid *Menochilus sexmaculatus* plays a vital role in aphid predation. The introduction of chemical pesticides has resulted in the elimination of natural enemies. The *Gardenia* sp (lakada) has been used as disinfectant in the Eastern region of Sri Lanka. Therefore, a study was conducted in a plant house to find out the effect of *Gardenia cramerii* flower bud and dimethoate against cowpea aphid (*Aphis craccivora*) predator, *Menochilus sexmaculatus* at the Eastern University, during Yala 1996.

Cowpea plants were grown in 21 plastic pots. Aphid nymph and its predator were assigned in the ratio of 50:1 to each cowpea plant. Dried flower buds of lakada were ground and sieved through a 60 mesh sieve to get lakada powder. 30 g lakada powder was mixed with 100 ml water to get lakada aqueous suspension. Dimethoate (40 EC) (0.3%) and lakada aqueous suspension (30g lak/100ml) were used as treatments along with control (water). Each cowpea plant was sprayed with the treatments mentioned above by using hand sprayers. The pots were arranged in a RCBD design and each treatment was replicated 7 times. The longevity of *Menochilus sexmaculatus* was observed for 30 days. Surviving aphid nymphs were counted 24 h after treatment (The number of nymphs killed by the application of botanical/chemical and present on the cowpea plant/soil were not taken into account) to calculate the searching efficiency of predator using Nicholson's (1933) formula.

Findings showed that longevity and the searching efficiency of *M. sexmaculatus* were significantly ( $p < 0.01$ ) reduced by dimethoate over *Gardenia* and control. However there is no significant ( $p > 0.01$ ) difference between *Gardenia* and control.

*Gardenia cramerii* (30 g/100 ml water) could be used as an alternative to dimethoate (chemical) to control aphids and to avoid detrimental effect on predator, *M. sexmaculatus*.