B-21 Studies on the efficacy of Lakada *(Gardenia cramerii)* (Ait) against cowpea aphid *(Aphis craccivora)* Koch (Homoptera : Aphididae)

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Studies were made to evaluate the efficacy of *Gardenia cramerii* (lakada) against cowpea aphid *(Aphis craccivora)* in the laboratory and plant house of the Eastern University during Yala 1996.

The aqueous suspensions of *Gardenia* flower bud powder at the rates of 5, 10, 15, 20, 25, 30, 35, 40g/100ml water were used in this study. Dimethoate (40 EC) was prepared at recommended rate (0.3%). Water was used as control. The survival of adult female aphids was counted at 12 h intervals till 50% mortality in each treatment was observed. Dimethoate significantly ($p<0.0001$) reduced the survival of aphid 26.66% among the treatments and 25g lak/100ml water was the most effective and economical dose among the *Gardenia* concentrations where the survival of aphid was 38%.

Further studies were carried out to confirm the laboratory findings along with neem oil under plant house conditions (temperature 29-31°C and RH 60-62%). The treatments used were 25g lak/100ml water, 30g lak/100ml water, dimethoate (40 EC) 0.3%, and neem oil (3%). Survival and fecundity of aphids were recorded for 5 and 6 days respectively after treatments. Among the botanicals, *Gardenia* (30g/100ml water) significantly ($p<0.0001$) reduced the survival and fecundity of aphid to 24.33% and 53.44% respectively followed by neem oil and 25g Gardenia/100ml water.

Eventhough the recommended insecticide, dimethoate significantly ($p<0.0001$) reduced the survival and fecundity of aphids over botanicals, considering the ill effects of dimethoate to natural enemies and humans, it was concluded that *Gardenia* (30 lak/100ml water) would be more effective, safe and economical than dimethoate.