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Comparative Study on the Effect of Neem Seed Kernel Extract and Synthetic Pesticide, Phenthoate Against Jassids, *Amrasca biguttula* Ishida on Brinjal

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The use of synthetic pesticides has created serious problems not only for human and animals but also for the environment. Therefore, the research is directed to find alternatives to the existing insecticides. Use of neem and neem products as natural pesticide has been an age-old practice. The present study was aimed to compare the effect of aqueous neem seed kernel extract (aq.NSKE) with that of synthetic pesticide on brinjal against jassids, *Amrasca biguttula.*

Brinjal *Solanum melongena* (Thirunelvely purple) seedlings were cultivated at Agricultural Research Station, Jaffna in twelve plots (25 plants/plot) and were grouped into four for the treatments such as synthetic pesticide, phenthoate (0.7 ml/l of water), 1 % of aqueous neem seed kernel extract (50 g /l) containing 5 % (w/v) soap solution, 5 % (w/v) soap solution and water as the control. Each treatment was repeated once a week. From each treated plot nine plants were selected at random for determining the number of jassids/unit area of leaf before and after the spray. Data were analyzed using ANOVA, t-test and LSD.

Significant reduction in number of jassids/unit area of brinjal leaf ($P<0.01$) was observed among the treatments. There was a significant difference (($P<0.01$) in number of jassids/unit area between synthetic pesticide and aq.NSKE from day after treatment to third day of application but after third day to seventh day of application there was no significant difference between the treatments aq.NSKE and phenthoate (LSD at 5 % level) but significantly ($P<0.05$) lesser than the control treatments. No significant difference in population of jassids was observed after eighth day of application ($P> 0.05$). The effect of aq. NSKE on jassids prolonged for seven days after the application.

This study showed that the 50 gm/l of aqueous neem seed kernel extract significantly reduces the number of jassids on brinjal as much as synthetic pesticide, phenthoate and the effect of aqueous neem seed kernel extract prolonged for 7 days after application.