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**Comparison of aqueous neem seed kernel extract and synthetic pesticide, Phenthoate against White fly, *Bemisia tabaci* on Brinjal.**

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The continuous usage of synthetic pesticides has created serious problems not only to human and animals and also to the environment. Neem seed is the richest source of the azadirachtin which act as repellent., antifeedant, inhibit oviposition and is being used as a natural insecticide. The present field study was carried out to compare the effect of aqueous neem seed kernel extract (aq.NSKE) with that of synthetic pesticide on brinjal against whitefly, *Bemisia tabaci*.

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

Significant reduction in number of white flies/unit area of brinjal leaf ( $P < 0.01$ ) was observed among the treatments from day after treatment to seventh day of application. 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 lesser than the control treatments. No significant difference in population of whitefly was observed after eighth day of application ( $P > 0.05$ ). The effect of aq. NSKE on whitefly prolonged for seven days after the application.

From this study, it is concluded that the 1 % of aqueous neem seed kernel extract (50 gm/l) significantly reduces the number of whitefly on brinjal as much as synthetic pesticide, Phenthoate and effect of aqueous neem seed kernel extract prolonged for 7 days after application.