

EFFECT OF ECOFRIENDLY INDIGENOUS PRODUCTS WITH CHEMICAL INSECTICIDES ON MORTALITY PERCENTAGE OF 3RD INSTAR LARVAE OF *HELICOVERPA ARMIGERA* (HUBNER)

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Abstract—Gram pod borer (*Helicoverpa armigera*) is the most serious pest responsible for higher yield losses in chick pea, cotton and red gram in India. *Helicoverpa armigera* is the major pest of many crops and considered as the main pest of chickpea. No plant seems to be strong enough to avoid attack of *Helicoverpa armigera* in affected field. Larvae of *Helicoverpa armigera* (Hubner) were collected from the nearby fields of chickpea. Present study was conducted to determine the susceptibility of *Helicoverpa armigera* (Hubner) for indigenous products and insecticide at various treatment. Seven treatments and five replication in indigenous products along with four treatment and five replication were taken up for the experiments. The data collected was analyzed using CRD design. Mortality of third instar *Helicoverpa armigera* (Hubner) was evaluated using tobacco leaf extract 10%, Neem seed kernel extract 10%, Neem leaf extract 10%, cow urine 10%, cow dung 10% and cow urine + cow dung 5% and plain water as control. The result revealed that T1= tobacco leaf extract 10% gave minimum mortality (7.37%) and T6= Cow urine + cow dung 5% gave maximum mortality (26.32%) third instar larvae *Helicoverpa armigera* (Hubner) and Mortality of third instar of *Helicoverpa armigera* was evaluated using Quinolphos 0.01%, Cypermethrin 0.01% and Chlorpyrifos 0.01% and plain water as control. The results revealed that T2= Cypermethrin gave minimum mortality (48.91%) and T3 = Chlorpyrifos gave maximum mortality (77.66) third instar larvae of *Helicoverpa armigera*.

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