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Effect of Botanical and Synthetic Insecticide on Different Insect Pests and Yield of Pea (Pisum sativum)

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Abstract : The present experiment evaluated different synthetic insecticides against Jassid (Amrasca devastations) on pea crop at Agriculture Research Institute Tarnab, Peshawar Khyber Pakhtunkhwa. The field was prepared to cultivate okra crop in Randomized Complete Block (RCB) Design having six treatments with four replications. Plant to plant and row to row distance was kept at 15 cm and 30 cm, respectively. Pre and post spray data were recorded randomly from the top, middle and bottom leaves of five selected plants. Five synthetic insecticides, namely Confidor (Proponil), a neonicotinoid insecticide, Chlorpyrifos (chlorinated organophosphate (OP) insecticide), Lazer (dinitroaniline) (Pendimethaline), Imidacloprid (neonicotinoids insecticide) and Thiodan (Endosulfan, organochlorine insecticide), were used against infestation of aphids, pea pod borer, stem fly, leaf minor and pea weevil. Each synthetic insecticide showed significantly more effectiveness than control (untreated plots) but was non-significant among each other. The lowest population density was recorded in the plot treated with synthetic insecticide i.e. Confidor (0.6175 liter.ha-1) (4.24 aphids plant^{-1}) which is followed by Imidacloprid (0.6175 liter.ha^{-1}) (4.64 pea pod borer plant^{-1}), Thiodan (1.729 liter.ha^{-1}) (4.78 leaf minor plant^{-1}), Lazer (2.47 liter.ha-1) (4.91 pea weevil plant^{-1}), Chlorpyrifos (1.86 liter.ha^{-1}) (5.11 stem fly plant^{-1}), respectively while the highest population was recorded from the control plot. It is concluded from the data that the residual effect decreases with time after the application of spray, which may be less dangerous to the environment and human beings and can effectively manage this dread.

Keywords : okra crop, jassids, Confidor, imidacloprid, chlorpyrifos, laser, Thiodan
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