ROLE OF NEEM PRODUCT (BIOSAL®) AND ITS IMPACT ON CHOLINESTERASE AND PROTEIN CONTENTS IN LARVAE OF PAPILIO DEMOLEUS L. IN COMPARISON WITH CYPERMETHRIN

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ABSTRACT:- Effects of neem seed extract (SDS - shade dried seed) namely Biosal and cypermethrin® were determined on total protein contents and cholinesterase activity in third instar larvae of citrus butterfly, Papilio demoleus L. Biochemical estimation revealed that Biosal at the dose of 5.4 µg/larva (LD₅₀) decrease the total proteins content up to 31.28% while cholinesterase inhibition at 90 sec., was found to be 38.46%. Larvae treated with cypermethrin at the dose of 6.1x10⁶ µg/larva (LD₅₀) showed a decrease in protein contents up to 36.44% while cholinesterase inhibition at 90 sec. was found to be 53.28. Inhibition by phytopesticides is lesser than cypermethrin. The data indicate that Biosal is much safer (less toxic) than cypermethrin, showing the environment friendly nature.

Key words: Neem extract, cypermethrin, Papilio demoleus, proteins contents, cholinesterase.