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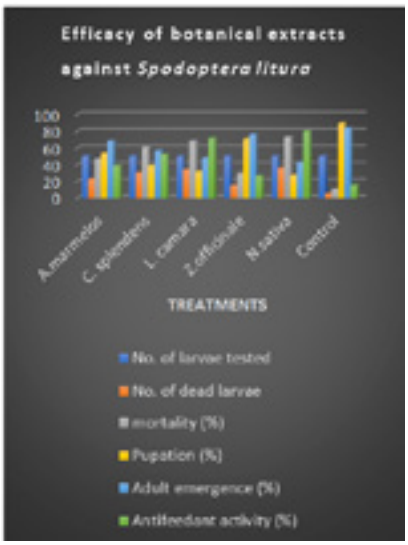
Antifeeding and morphogenetic activity of certain botanical extracts against *Spodoptera litura*

Ankita Awasthi and **Sangeeta Avasthi**
A N D N N M Mahavidyalaya, India

Spodoptera litura is a polyphagous pest having wide range of host plants. In India, it affects more than 40 species of plants. It adversely affects the fruit quality. The pest develops resistance against the several used pesticides. To overcome this problem, secondary metabolites of plants were used as bio pesticides to control the growth and population of the pest. These bio pesticides are environmentally safe and less harmful to the non-target organisms. Five botanical extracts like *Aegle marmelos*, *Clerodenrum splendens*, *Lantana camara*, *Zingiber officinale* and *Nigella sativa* were tested against the 3rd instar larvae of *S. litura*. The maximum antifeedant activity (79.80%) was observed in *N. sativa* followed by *L. camara* (71.29%), *C. splendens* (52.15%), *A. marmelos* (38.64%) and *Z. officinale* (26.56%). In *Nigella sativa* treated castor leaves, the consumed leaf area by pest was below 200 sq mm. Highest mortality of 3rd instar larvae (72.79%), lowest pupation (27.21%) and lowest adult emergence (42.91%) were also recorded in *N. sativa* treatment. Maximum percentage of deformed pupae and poorly developed adult moth were also recorded in *N. sativa* treatment. *A. marmelos*, *C. splendens*, *L. camara* and *Z. officinale* were also showed significant effect against *S. litura*.



Biography

Ankita Awasthi is a Research Scholar. She performed her research to develop environmentally safe and biodegradable pesticides. She used medicinal plants as biopesticide to control *Spodoptera litura*.

ankitaawasthi88@rediffmail.com

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