

Influence of *Thevetia peruviana* (Pers).K.schum on biochemical parameters of *Spodoptera litura* Fab..

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Abstract

Botanical pesticides are used in a variety of pest control situations. Their less-toxic nature makes them a suitable candidate for IPM. They possess dose-dependent anti-insect activities starting from repellency and leading to the death of insects. Their large-scale utilization is obstructed by the non-availability of formulations. A potential botanical *Thevetia peruviana* (Pers).K.schum, whose influence on various physiological systems of *Spodoptera litura* was studied. Acetone fraction of hexane extract, acetone fraction of methanol extract, and acetone fraction of ethyl acetate extract were found to possess insecticidal activity. Among them, acetone fraction of hexane extract was the most promising extract with LC₅₀ of 5 percent. At LC₅₀, the carbohydrate, protein, and lipid contents were reduced to the tune of 80, 63, and 73 percent.

Keywords:

Botanicals *Thevetia peruviana* *Spodoptera litura* LC₅₀