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**Biological activities of Ipomoea carnea (Jacq.) extracts and chlorpyrifos on the cotton worm *Spodoptera littoralis* (Boisd.)**Mamdouh I Nassar<sup>1</sup>, Mohamed T Taha<sup>2</sup>, Hala M I Mead<sup>3</sup> and Mohamed G M Salama<sup>3</sup><sup>1</sup>Cairo University, Egypt<sup>2</sup>Al-Azhar University, Egypt<sup>3</sup>Plant Protection Research Institute, Egypt

Biological activities of different safety botanical extracts were very potent against many insect species. The cotton leaf worm, *Spodoptera littoralis* (Boisd.) is a highly polyphagous insect that causes damages to more than 112 plant species around the world. The toxic effect of *Ipomoea carnea* (*I. carnea*) extracts against 4<sup>th</sup> instar larvae revealed that LC<sub>50</sub> and LC<sub>90</sub> values of *I. carnea* extracts were 24.622 and 164.947 ppm, respectively while, LC<sub>50</sub> and LC<sub>90</sub> of 4<sup>th</sup> instar larva treated with chlorpyrifos insecticide was 9.497 and 91.126 ppm, respectively. On the other hand all the tested treatments were significantly affected during the larvae, pupae and adult stage. LC<sub>50</sub> of *I. carnea* extracts produced the highest significant increase of total immature duration which was 28.66 days, followed by chlorpyrifos, 28.40 days compared to controls (22.57 days). Adult longevity was slightly affected while the female fertility was decreased by 1277.65 and 1300.79 due to LC<sub>50</sub> of *I. carnea* and chlorpyrifos, respectively compared to controls (1969.23). Moreover, larvae, pupae and adult deformation of *S. littoralis* were obtained after treatment of 4<sup>th</sup> instar treated with *I. carnea* extracts (16%, 6%, and 10%) and chlorpyrifos compound (0%, 6%, and 6%) of larvae, pupa and adult stages, respectively. This study suggested that *I. carnea* was very essential to attract alternatives to synthetic chemical pesticides for pest management as they reportedly pose threat to the environment and human health.

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