

**Abd-Elgayed, A. A., Abdella, M. M. H. and Desoki, Salwa S. B.(2013):** Evaluation of efficacy of some plant volatile oils and biocides against tomato pin worm, *Tuta absoluta* Meyrick (Lepidoptera: Gelechiidae), Fayoum J. Agric. Res. & Dev., 27(2): 87-98.

الملخص الانجليزي :

The present study was carried out in Plant Protection Department, Fac. of Agric., Fayoum Univ. under the laboratory conditions ( $20 \pm 1^{\circ}\text{C}$  &  $70 \pm 5$  % R.H.). Toxicity of four plant volatile oils, Marjoram, Clove, Camphor and Mustard, two commercial biocides, Spinosad and Dipel and one chemical insecticide, Lannat was determined against the 4<sup>th</sup> larval instar of *Tuta absoluta* Meyrick by using serial concentrations of such materials. The results indicated that Marjoram oil was the most toxic followed by Clove and Camphor while Mustard was the least effect of toxicity index (2957.95 ppm). Spinosad was the most toxic biocide followed by Dipel and Lannat. The mixtures of plant volatile oils with biocides or insecticide increased toxicity to the insects. Latent effect of Spinosad was more effective against *T. absoluta* compared with other compounds, while Marjoram oil was more effective than other oils.