دراسات بيولوجية وهستوربايثولوجية على تأثير بعض المستخلصات النباتية على دودة ورق القطن الكبير (سبودوپتر النيورالييس)

إعداد
حنان أبو القاسم محمد بطلب

S. littoralis (Boisd.)} & {S. littoralis (Lepidoptera, Noctuidae) 

Spodoptera littoralis (Boisd.) 

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(نحو - ٤٠٠) أدب شأوبدل لينوق، أشنأون نبركى مكن. (نحو - ٤٠٠) يداإیه ضأو ينأوي، كربند ملفKEN. (نحو - ٤٠٠) يرقبة – عذراء (٥)، أدراسات الهستولوجية أوضح الطور وكذللك المعالمة اليافعن. (٨، ٣) النباتية بالละتخذیة المعالمة المختبرة، أثنى الجرعات.)
BIOLOGICAL AND HISTOPATHOLOGICAL STUDIES ON THE EFFECTS OF SOME BOTANICAL EXTRACTS ON THE COTTON LEAFWORM *SPODOPTERA LITTORALIS* (BOISD.) (LEPIDOPTERA : NOCTUIDAE)

By
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Abstract

1. *Spodoptera littoralis* (Boisd.) (Lepidoptera, Noctuidae) considered as one of the most agricultural pests and wildly spread in the middle east region, this pest it is the most damaged to numerous types of the agricultural crops.

2. There is more than one plant that used in the study and produced high effectiveness and clear toxicity against *S. littoralis* (Boisd) these plants are *Allium sativum*, *Thymus vulgaris* and *Abras precatorius* dissolved in (acetone, ethanolic and petroleum ether)

3. The toxicological studies showed existence of clear homogeneity in obtained results, where there was an increase in toxicity rates with increased concentrations for all plant extracts on some biological aspects such as larval weight, larval mortality, pupation, pupal weight,
adult emergence, sex ratio, fecundity, fertility, and longevity

4. Our results clearly indicated certain morphological changes (malformations), it was found that all these effects occur under all the used dosages for all developmental stages (larvae- pupae and adults), the intermediate stages also had been showed, (larva - pupae and pupae - adult).

5. The histological examination assured that the tested extracts induced several histopathological symptoms in the treated larvae such as degeneration in the muscle layers, disorganization in the epithelial cells, absence of nuclei, vacuolizations, separation of peritrophic membrane as well as detachment of the basement membrane of the mid- gut, Also fat body shows sever changes like shrinkage, damage and vacuolization. As well as ovaries and testis showed histopathological changes such as shrinkage of oocytes, degeneration of the follicular epithelium, vacuolization and histruction of nurse cells, histruction in the different stages of spermatogenesis, vacuolization as well as degeneration in the epithelial sheath and testicular follicles was also observed.