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شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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التوثيق الإلكتروني والميكروفيلم

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بالرسالة صفحات لم ترد بالأصل

SEMI-LOOPER WORM, *AUTOBA (EUBLEMMA) GAYNERI* (ROTH.) (LEPIDOPTERA: NOCTUIDAE) AS AN INSECT PEST ON MAIZE IN EGYPT

By

Adel Mohamed Abd El-Rady El-Rawy

B.Sc. Agric. (Plant Protection), Assiut University, 1991

M.Sc. Agric. (Economic Entomology), Cairo University, 1999

Thesis

Submitted in Partial Fulfillment of

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Faculty of Agriculture, Cairo University

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ABSTRACT

Ecological and Biological studies of a semi-looper, *Autoba gayneri* (which is recorded for the first time on maize in Egypt) indicated the following:

1- Ears of maize were attacked by this insect in governorates of Middle and Upper Egypt.
2- The rate of infested ears were increased with decreasing the space between maize hills, increasing of nitrogenous fertilization levels and decreasing the number of hoeing.
3- The early flowering hybrids were more susceptible than later ones.
4- The highest infestation occurred in two hybrids (TC 310 & TC321) with cob husks loosely covering ear tip, followed by (SC122 & SC124) with cob husks tightly covering ear tip. While the lowest infestation occurred in two hybrids (SC9 & TC 320) with ear head uncovered with husks.
5- *A.gayneri* attacked maize ears during the blister stage and continued until the physiologic maturing stage. The highest percentage of larvae and pupae on ears were recorded during the dough stage (60.07%).
6- This insect found attack three hosts: maize, sorghum and castor oil.
7- The number of annual generations were five generations under field conditions and ten generations under laboratory constant conditions (27 $\pm$ 1°C and 65 $\pm$ 5% R.H.).
8- The mean number of eggs laying on maize ears, sorghum panicles, silks, castor oil leaves, tassels and maize cob-husks were 219.57, 198.19, 149.10, 127.89, 118.30 and 44.70 eggs/female, respectively.
9- The duration of larval, pupal, female and male stages were (10.41, 11.65, 14.20, 11.80, 14.48 and 15.14 days, respectively); (9.08, 9.24, 9.92, 10.56, 10.14 and 10.22 days respectively); (21.92, 21, 21.70, 23.33, 20.40 and 19.53 days, respectively) and (18.78, 18.31, 18.30, 20.13, 15.80 and 17.70 days, respectively on maize ears, sorghum panicles, silks, castor oil leaves, tassels and maize cob-husks, respectively).
10- The semi-artificial diet contained maize grain powder is suitable for rearing larval stage of this insect, whereas the hatchability, pupation, adult emergence, pupal weight and fecundity were 89.25%, 89.25%, 87.14%, 100%, 27.64mg and 223.80 eggs/female, respectively.
11- A single larva consumed 1408.384mg maize ears during its span.

Ibtisam Hemeida

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