

TEST SOME LOCAL ISOLATES OF THE BACTERIUM *Bacillus thuringiensis* INSECT FIG MOTH *Ephestia cautela* (Lepidoptera: Pyralidae) REARED ON ARTIFICIAL DIET IN THE LABROTARY .

Ahmad M. Tarek *

Jasser M.Jamil Al.hadethy **

* Technical institute/sweera- Board of Technical Education- Iraq.

ahmadtarek2001@yahoo.com

** Technical institute/Musaib- Board of Technical Education- Iraq.

ABSTRACT

This research carried out in the laboratory of Technical Institute / Musayyib in 2011, has been tested six isolates local bacteria *Bacillus thuringiensis* on the first stage and the last of the larvae of a figs moth *Ephestia cautela* (Lepidoptera: Pyralidae) reared on the artificial diets, while treated control with water only. And took the percentage of mortality results after 2, 5, 8 days since results showed that the highest mortality rate of 96.6% on the eighth day in each of the isolates DE 1-8 and NA 2-1 and DE 2-3 when Concentration 1.2×10^6 spore /ml. While less kill ratio at treatment SL 4-1 in the concentration of 1.2×10^4 spore /ml, amounting to 23.3%. isolation DE 2-3 achieved the highest rate at 72.2% at the concentration 1.2×10^6 spore /ml. within eight days, while the lowest rate was 23.3% when isolation SL 4-1 Concentration 1.2×10^4 spore /ml. The higher efficiency relative to *Bacillus thuringiensis* bacteria in the mortality of the last instar larvae of the insect fig moth *Ephestia cautella* rate has reached 34.7% in isolation DE 2-3 focus 1.2×10^6 after the fifth day, while less relative efficiency rate was 6.8% when SL 4-1 in isolation Focus 1.2×10^4 .

The overlap between the concentration and the periods of isolation has achieved higher mortality in DE 2-3 at 46.8% at the concentration of 1.2×10^6 spore /ml after 5 days of treatment either at least it was 0.00% in isolation SL 4-1 at the concentration of 1.2×10^4 spore /ml after 2 days of treatment. As for the larvae that has not reached the stage of the pupae is observed that the lowest rate could not be reached 52.6 when isolation DE 2-3 focus 1.2×10^6 spore /ml .

Which differed significantly from the treatment comparison, while the percentage larvae that could not is when isolation SL 4-1 in Focus 1.2×10^4 at 94%, which did not differ significantly from the treatment comparison, either adult that emerged from these pupae There was no significant effect

on emergence percentage compared to the treatment of comparison where the lowest percentage rise of 88.8% when isolation AN 8-3 consecration 1.2×10^6 spore /ml while did not differ the rest of the other treatments for the of control mortality. The mortality efficiency was shown in the last larval instar compared to the first .

Key words: *Bacillus thuringiensis* , *Ephestia cautella*, Biological Control .

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