

# II INTERNATIONAL SYMPOSIUM ON SCIENCE AND BIOTECHNOLOGY ENTREPRENEURSHIP AND INNOVATION

## ISOLATION OF BACILLUS SP. FROM ORGANIC VINEYARD SOIL AND EVALUATION OF ENTOMOPATHOGENIC POTENTIAL IN ANASTREPHA FRATERCULUS LARVAE

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### Abstract

Bacillus, insulation, entomopathogenic, AnThe viticulture is a farming activity of great economic importance, during the last decades there was a microbial diversity in these areas, and one of the groups of bacteria with higher diffusion is the Bacillus. In contrast one of the major pests of fruit trees of lump is to Anastrepha fraterculus, their combat occurs through several tracks. The objective of this work was to isolate, and check the activity entomopatogênica Bacillus gram-positive bacterium from soils of organic vineyard in larvae of Anastrepha fraterculus. Were collected 3 soil samples from organic vineyard, and from this were isolated Bacillus gram-positive bacterium with the presence of spores and crystals. After the selection were performed bioassays of pathogenicity in larvae of Anastrepha fraterculus. We used four treatments (T1=water, T2=Isolate BS-10S, T3=Isolate BS-8S and T4=Isolate BS-6S). In each treatment were placed 0.5 ml of growing end of each crop in disposable cups containing 50 mL of artificial diet and 10 larvae of second urges. After 48 hours in B.O.D at 25°C, were counted the dead larvae. According to the results were obtained eight isolates of Bacillus, and three had similar morphology to gender sphaericus. The bacterium tested, the isolate BS-6S ( $5,67 \times 10^9$  CFU/mL) was the only one that presented itself to pathogenic larvae of Anastrepha fraterculus.

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Keywords - Bacillus, insulation, entomopathogenic, Anastrepha, viticulture.

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