[4101] INSECTICIDE ACTION OF ETHANOLIC EXTRACT FROM *ANNONA CRASSIFLORA* SEEDS AGAINST *SPODOPTERA FRUGIPERDA*

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The Annonaceae plant species represent a source for biologically active acetogenins which is described with a broad range of activities in different potential biological roles in the pharmaceutical industry, as cytotoxic, antitumor, antiparasitic, antimicrobial and immunosuppressive, and lately with pesticide activity. *Annona crassiflora* Mart. is a native Brazilian tree growing in the savanna area ("cerrado") with seeds being traditionally used in folk medicine as antidiarrheal and insecticide. Hence, it was included in Embrapa Milho e Sorgo screening program against fall armyworm, *Spodoptera frugiperda* which attacks maize plant in the field causing losses of approximately 34 % in crop production. Synthetic insecticides are the conventional way to control this insect. However, natural products from plants have been studied as an ecologically alternative in protecting crops. Bioassays to determine the insecticide activity were carried out in laboratory with ethanolic extract from seeds of *A. crassiflora* (F01) at concentration 10000 µg mL^{-1} incorporated to an artificial diet. A group of 12 insects were used. Each insect was fed in a 50 mL plastic cup containing 4.8 g of diet with incorporated extract. Two check treatments were used with diet without extract (water and acetone). Observations on control efficacy were made 1) on mortality (%) according to Abbott procedure 12 days after larvae eclosion and 2) the development of the live larvae (larva length, weight and width of the head capsule). Results showed control efficiency of 56,7 %. The surviving larvae were 0.19 mm long, weighed 1 mg and had a head capsule width of 0.35 mm, and a strong negative effect was observed on its development as compared to the larvae in the check treatment showing 1.76 mm long, 329 mg of weight and a head capsule width of 2.27 mm. Therefore, seeds ethanolic extract presents potential insecticide action against this insect.

Index terms: Annonaceae, fall armyworm, natural insecticide, *Zea mays*