[1513] EFFECT OF A NUCLEAR POLYHEDROSIS VIRUS ON *SPODOPTERA FRUGIPERDA* LARVAE, ITS DAMAGE AND YIELD OF MAIZE CROP AT DIFFERENT EGG MASS INFESTATION LEVELS

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The efficiency of *Baculovirus* in a wettable powder formulation to control the fall armyworm *Spodoptera frugiperda* (Smith) was evaluated. The treatments were arranged in a randomized complete block with six replications. Plants at the 8-10-leaf growth stage were artificially infested with different densities of fall armyworm egg masses (0, 20, 40, 60, 80 and 100% of infested plants). The virus was applied using a dose of 50 grams per hectare (2.5×10^{11} polyhedron inclusion bodies - PIB/ha) applied once as an aqueous suspension (300 l/ha) 72 days hours after egg hatching using a back-pack-manual sprayer at 40 PSI (2.8 kg/cm^2) and a regular flat fan nozzle. Evaluation was based on larva mortality, leaf damage and yield. A comparison, a similar experiment was conducted without virus application ("untreated"). Larva mortality rate obtained on plots protected by the virus varied from 82.6% (100% infestation) to 93.2 (20% infestation level). The leaf damage (1 to 5 scale) was 3.5 and 2.3. The yield obtained from plots with infestation levels of up to 60% was similar to the yield obtained from non-infested plots. Leaf damage was severe (2.8 to 5.0) in the "untreated" experiment. The yields were linearly and inversely correlated to the increase in fall armyworm egg mass infestation and the yield reduction was 42.3% in the highest infestation.

Index terms: Insecta, fall armyworm, artificial infestation, biological control, Baculovirus, *Zea maiz*)