

Oviposition preference and culture control of *Spodoptera frugiperda* (Lepidoptera: Noctuidae) in corn (*Zea mays*)

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ABSTRACT:

We evaluated the oviposition preference and damage capacity of *Spodoptera frugiperda* on the different phenological stages of corn. Tests were performed at the Assis Chateaubriand Agricultural School (07°10'15" S, 35°51'13" W, altitude 634 meters), municipality of Lagoa Seca, Paraíba State, Brazil, in two areas of 500 m², with CMS maize hybrid strain and maize intercropped with bean with the spacing of 0.80 x 0.40 m. Eggs and caterpillars were collected weekly on 50 plants randomly sampled in five spots. Height and number of leaves per plant, and damage from caterpillars of *S. frugiperda* were recorded using the scale, the rangers were., 0) no damage, 1) leaf scraped, 2) leaf pierced, 3) leaf torn, 4) damage in cartridge, 5) cartridge destroyed. The average number of clutches did not differ significantly among the three phenological stages of the culture, but average clutch size (number of eggs) was significantly smaller for the stage of 4-6 leaves. However, there was a significant interaction with respect to the number of clutches between position in the plant (lower, middle, and upper) and phenological stage, and between leaf surface and phenological stages. There were significant differences among tillage systems for corn in monoculture and corn intercropped with bean.

Keywords:

Fall armyworm, behavior, bioecology, host.