

1540 Vertical distribution of *Spodoptera frugiperda* in Brazilian cotton crops

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High population levels of *Spodoptera frugiperda* in cotton crops in Brazil occurs due to favorable climatic conditions, inadequate use of insecticides, and cotton succeeding grass crops. Studies on spacial distribution help to determine the right pest management. This work wants to determine the vertical distribution of *S. frugiperda*. Two acres blocks were demarcated where 20 plants were randomly inspected once a week, looking for presence of insects or injury. The number of eggs, caterpillars and damaged structures were registered. There were reduced number of mass eggs in the cotton plants, and the oviposition occurred in sorghum plants cultivated nearby. The caterpillars were more widely distributed on medium and superior portions of cotton plants. The type of floral structure did not influence feeding preference. In plants with higher number of formed bolls (mostly present in the inferior portion), the injuries were higher. Samplings for determination of the population level must be done in medium portion of the plant during floral bud production stage, and in bolls present in the inferior portion after the opening flower stage.