

## [2674] STRATEGY MANAGEMENT OF *SPODOPTERA FRUGIPERDA* THROUGH SELECTIVITY OF INSECTICIDE

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*Spodoptera frugiperda* is the main pest of maize in America. Its control is based mainly on chemical pesticides, usually of broad spectrum, causing a disturb in the ecosystem by the elimination of natural enemies. Conservation of these biological control agents can be achieved by the use of selectivity. This work was conducted to determine the effect of different chemical group used to control the pest over some of its natural enemies. Adults of the predator *Doru luteipes*, pupae of the larval parasitoid *Campoletis flavicincta*, eggs of *S. frugiperda* parasitized by *Telenomus remus* and eggs of *Anagasta kuehniella* parasitized by *Trichogramma pretiosum* were sprayed using a sprayer connected to a rolling mat (CO<sub>2</sub> pressure, quick jet 110.04 nozzle, work pressure of 3,1 Kg/cm<sup>2</sup> and 158 l/ha). It was used a complete randomized design with six replications. A selectivity index was computed based on survivorship: 1, survivorship from 0 to 25%; 2, from 26 to 50; 3, from 51 to 75 and 4 over 76% de survivorship. The overall survivorship within pyrethroid group was 82.9% and within physiological insecticides, 82.6%. Greater adverse impact on the natural enemies was observed within carbamates and organophosphates, with average survivorship of 69,5 e 61,1%, respectively. Considering each natural enemy, the predator *D. luteipes* (86,6% survivorship) presented the greatest tolerance to the chemical pesticides, following by *C. flavicincta* (81,9%). The survivorship of the egg parasitoids, *T. pretiosum* and *T. remus* was 67,4 e 61,8%, respectively. Considering the selectivity index, pyrethroid and physiological insecticide were classified under category 4 and carbamates and organophosphates under category 3.

Index terms: selectivity, *Trichogramma pretiosum*, *Telenomus remus*, *Doru luteipes*, *Campoletis flavicincta*