

# Life table parameters of the predatory bug *Orius laevigatus* (Fieber) [Hemiptera: Anthocoridae] preying upon the tobacco whitefly *Bemisia tabaci* (Gennadius) [Homoptera: Aleyrodidae].

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## Abstract:

The current study described the life table characteristics of the predatory bug *Orius laevigatus* preying upon the tobacco whitefly *Bemisia tabaci* infestation offered on tomato (*Lycopersicon esculentum* L. cv 144), and eggplant (*Solanum melongena* L. cv Classic) leaf discs under laboratory constant conditions of  $26 \pm 1^\circ\text{C}$ ,  $75 \pm 5\%$  R.H. and 16L:8D photoperiod regime. Average life table parameters for two successive generations of *O. laevigatus* fed upon *Bemisia tabaci* infestation offered on tomato and eggplant were calculated respectively according to host plant as: intrinsic rate of increase ( $R_m$ ): 0.12, 0.038; gross reproductive rate (GRR): 46, 18 insect/female/generation; net reproduction rate ( $R_o$ ): 20, 2.6 females/female/generation; finite rate of increase ( $\lambda$ ): 1.12, 1.038 females/female/day; mean generation time ( $T$ ): 25.7, 25.2 days; and doubling time (DT): 6, 18.2 days. Those parameters indicated that *O. laevigatus* has the potential to be used as predator against *B. tabaci* and that this predator would likely be able to overcome populations of *B. tabaci* on tomato and eggplant plantation in greenhouses under the conditions similar to those used in this study. This appears to be the first publication recording the life table parameters of *O. laevigatus* when used as natural enemy against *B. tabaci* infestation.

**Key words:** life table, *Orius laevigatus*, *Bemisia tabaci*, tomato, eggplant, biological control.

