

**NUTRITIONAL ADAPTATION OF *OEBALUS INSULARIS* STAL
(HEMiptERA: PENTATOMIDAE), *ECHINOCHLOA COLONA* LINK
(POACEAE)**

Bruno Zachrisson; Pamela Polanco; Onesio Martinez.

*Instituto de Investigación Agropecuaria de Panamá, P.O Box 832-02758,
Panamá, Panamá. bruno.zachrissons@idiap.gob.pa*

The biological performance of *Oebalus insularis*, is associated to the nutritional quality of several food sources. For which this work determined the nutritional quality of the natural hosts *Oryza sativa*, *Echinochloa colona* and *Eclipta alba*, for the biological performance of *O. insularis*. The experiments were installed in laboratory conditions ($28 \pm 2^{\circ}$ temperature, relative humidity $80 \pm 5\%$ and photophase of 8 hours). The following parameters were evaluated: a) Biological cycle duration; b) Longevity of the adults; c) Oviposition period; d) Eggs viability; e) Number of Eggs by posture; f) Number of postures by females. The experimental design was completely at random and the statistical analysis used was a "t" test at 5% probability level. In addition a fertility life table was developed considering: a) Liquid reproduction rate (R_0); b) Increase infinite rate (R_m); c) Increase finite rate (λ). The insects fed with *E. alba*, only developed until second nymphal stage considering a natural inviable diet. The biological and reproductive parameters of *O. insularis*, obtained in *O. sativa* and *E. colona*, confirmed the nutritional efficiency and adaptation of the insect to *E. colona*. In addition, the parameters obtained in the fertility life table (R_m , R_0 and λ), also confirm the nutritional efficiency of *E. colona*, in the biological performance of the pest.

Financial support: National Secretary of Science and Thecnology (SENACYT), Panama, Panama