

Life Tables of *Hypothenemus hampei* (Ferrari) on Three Coffee Accessions

J. V. ROMERO¹, G. H. CORTINA²

National Coffee Research Center -CENICAFE-, Chinchiná, Caldas, Colombia

¹I.A. E-mail: JuanVicente.Romero@cafedecolombia.com

²I.A. M. Sc. E-mail: Hernando.Cortina@cafedecolombia.com

SUMMARY

To find sources of resistance to coffee berry borer (*Hypothenemus hampei* (Ferrari)), the life table ($26\text{ }^{\circ}\text{C} \pm 1$; $75\% \pm 5\text{ H.R.}$) on three coffee accessions was studied. Two assays were performed: On the first one, development and survival were evaluated. The evaluated accessions were *Coffea liberica* Bull ex Hiern, *Coffea arabica* L. CCC 534 and Caturra (susceptible variety). On the second assay, the adult's survival and fecundity were evaluated. The duration of the cycle for the three accessions was similar: 20 days. The accumulated ovipositions were adjusted to quadratic functions, the confidence intervals ($p = 95\%$), showed significant differences among the introductions and the control: CCC 534 32 ± 2 ; *C. liberica* 28 ± 2 and Caturra 42 ± 2 until 28th day. The survival until 72 days (between 58% and 63%), which did not present significant differences. For the net reproductive rate (R_0), significant differences were found among Caturra (25 ± 1 eggs), and the accessions CCC 534 (18 ± 2), and *C. liberica* (16 ± 2); in the intrinsic rate of increase (r) (0.085 ± 0.001 , 0.078 ± 0.002 , 0.070 ± 0.003 respectively), and the duplication time too (8 ± 0.1 , 9 ± 0.3 , 10 ± 0.4 days). For the generation time between Caturra and *C. liberica* significant differences were found (38 ± 0.3 , 40 ± 0.6 respectively).

Key words: coffee germplasm, resistance to insects, antibiosis