

Population Density of *Cephalonomia stephanoderis* (Hymenoptera: Bethylidae) and Its Effect on Coffee Berry Borer in Tachira, Venezuela

A. N. TORRES¹ AND Y. A. AMADOR²

¹Instituto Nacional de Investigaciones Agrícolas

²Universidad del Táchira

SUMMARY

The effect of *Cephalonomia stephanoderis* (Hymenoptera: Bethylidae) on coffee berry borer (Coleóptera: Curculionidae, Scolitynae) was evaluated in a coffee plantation located at the INIA Experimental Farm in Bramón, Junín County, Táchira, Venezuela. Four different population densities of the parasitoid referred to proportions of the little wasp to borer infested berries were introduced into cages made of organdi which enclosed coffee branches containing ripe borer infested berries. Treatments were 1:2, 1:1, 3:2, 2:1 and a control having no parasitoids with four replicates. Twenty borer infested berries in a ripe stage were used in each cage. Thirty days after the parasitoids were released into the cages the parasitism percentage was estimated by counting the different stages of the pest and the parasitoid present inside the dissected berries. The parasitism percentage depends on the number of released wasps. Also, it was observed in this experiment that the Ivory Coast wasp caused a great impact in all the coffee berry borer stages present inside the visited berries. In addition to its parasitic activity on 2nd stadium larvae and pupae, this parasitoid also predaes eggs and 1st stadium larvae, and it is capable of killing adults. It was demonstrated, in this work, that *C. stephanoderis* is an excellent parasitoid that can be used in a coffee berry borer integrated management program.

Key-words: Parasitic wasps, biological control, IPM