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BIOLOGICAL CONTROL OF Helopeltis antonii (HEMIPTERA: REDUVIIDAE) TOWARD SUSTAINABLE AGRICULTURE

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Helopeltis antonii is a serious pest on Cacao plantation that feed mainly on pod and young leaves. Crop losses caused by H antonii have been calculated to be about 20 % of the yiled. Sybthetic insecticides have been used satisfactorily to control this [est. However, it has been known that not all chemical substances have always been used correctly and some of them are particularly highly toxic. It has caused of resistance phenomena, very wide spread pollution and sometimes caused serious in balances within ecosystem. Biological control is a method which can be utilized to over come these problems. Tha cacao black ant Dolichoderus tuberculatus, has been proven as a useful insect in controlling H antonii (Roepke and van der Goot, 1908). The aim of this study was to determine the types of nests which is suitable for natural breeding of D. tuberculatus and to study D. tuberculatus as useful insect for controlling H antonii at Cacao plantation. The result showed that the coconut leaves nests was the most suitable nests for breeding D. tuberculatus at cacao plantation and D. tuberculatus has proven as a beneficial insect to protect cocoa pods against H. antonii.

Key words: D. tuberculatus, H. antonii, Cacao