

Feeding and Reproductive Activities under Field conditions of the Variegated Grasshopper on Legumes Selected for Short Fallow Improvement (Orthoptera: Pyrgomorphidae)

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Amongst various approaches to improve the short fallow system, the introduction of leguminous cover crops has been considered to be more promising and efficient. This introduction may create more complex pest scenarios than those encountered in traditional agricultural systems. Here is a report on the feeding and reproductive activities of the variegated grasshopper *Zonocerus variegatus* (Linnaeus 1758) on *Chromolaena odorata* (Linné) King & Robinson and 50 selected legume species under testing process, prior to their introduction in the agricultural system in the humid forest zone of southern Cameroon. Direct observations on plants were done in the field set up in the experimental station of the International Institute of Tropical Agriculture (IITA-Cameroon). The results showed that *Z. variegatus* consumes actively *C. odorata* and 21 legume species. Compared to *C. odorata*, the frequency of the feeding activities on legumes was less. The most attacked legume species were *Cajanus cajan* and *Pueraria phaseoloides*. Variegated Grasshopper attacked all plant organs, with a strong preference for the leaves. The frequency of the feeding activities observed on leaves and flowers were most important on *C. odorata*. With regard to the reproduction, some cases of mating were noted on *C. cajan* and *Mucuna veracruz*. No oviposition was observed in all the 51 plant species studied. Hatching was found only under *C. odorata*. This study suggests that the feeding and reproduction activities of Variegated Grasshopper in the field depend on the plant species available. The observed lower feeding and reproductive activities on legumes compared to *C. odorata* indicates that the introduction of these legumes in the system may reduce the pest status of *Z. variegatus*.

Key words: *Zonocerus variegatus* (Linnaeus 1758) – *Cajanus cajan* – *Chromolaena odorata* (Linné) King & Robinson – *Mucuna veracruz* – *Pueraria phaseoloides* – biological control – Cameroon – feeding – reproduction

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Parmi les multiples stratégies d'amélioration du niveau de fertilité des jachères de courte durée, l'introduction des légumineuses de couverture est considérée comme étant très efficace. Cependant, on ne sait pas si la présence des nouvelles jachères dans le milieu naturel induirait plus ou moins des problèmes de ravageurs que les jachères traditionnelles.