

Nutritional value assessment of variegated grasshopper, *Zoniocerus variegatus* (L.) (Acridoidea:Pygomorphidae), during post-embryonic development

K.O. Ademolu¹, A.B. Idowu¹ & G.O. Olatunde²

¹Biological Sciences Department, University of Agriculture, P.M.B. 2240, Abokuta, Ogun State, Nigeria

²Crop Production Department, University of Agriculture, P.M.B., 2240, Abokuta, Ogun State, Nigeria

The nutritive value of various stages of development of *Zoniocerus variegatus* (L.) was evaluated by proximate analysis, mineral analysis and vitamin assay. The moisture content ranged between 65.92 % (adult stage) and 77.14 % (third instar). The highest crude protein content was recorded by the adult stage though was not significantly ($P > 0.05$) different from first instar stage, but the first instar stage had the highest ash content followed by the fourth instar. The first-third instars recorded the highest mineral contents (Mg^{2+} , Zn^{2+} , K^+ , Fe^{2+}) while the later instars recorded the least except in phosphorus. Throughout post-embryonic development, the Na^+/K^+ ratio was less than 1.0. Vitamin assay showed that the proportion of Vitamin A was higher in the adult than the other two vitamins. The vitamin content increased in the insect as it moulted from one stage of development to another. It can thus be concluded that *Z. variegatus*, especially the earlier instars, is fairly nutritive and can be included in both human diet and farm animal rations.

Key words: *Zoniocerus variegatus*, post-embryonic development, proximate and mineral content, vitamin assay, entomophagy.