

# Influence of Different Management Systems on Gut Microbes and Chemical

## Constituents of Giant Land Snail (*Archachatina marginata*)

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### Abstract

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The impact of management systems on the African giant land snail, *Archachatina marginata* found in Abeokuta, Nigeria was investigated. The gut microbial load, haemolymph biochemical values (proteins, lipids, glucose, Na<sup>+</sup>, Ca<sup>2+</sup>, K, CD PO/+) and proximate composition (crude protein, fat, fibre, ash and carbohydrates) of the flesh were determined in these snails. There were significantly ( $p < 0.05$ ) higher colony forming units (cfu) in the gut of snails from the wild ( $5-24 \times 10^3$ ) than the domesticated snails (3-13 cfu). The haemolymph biochemical values and flesh proximate composition were significantly higher in the snails from the wild than the domesticated ones. However, antinutrients and mineral composition of the flesh were not significantly affected by the management systems. The implication of these results on snail meat value in Nigeria is discussed.

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**Key words:** *Archachatina marginata*, management systems, heliculture, gut microbes