

Tolerance of African giant land snails (*Archachatina marginata*) to varying dietary salt

Ugwuowo Leonard Chidi

Nnamdi Azikiwe University Awka, Anambra State, Nigeria



Abstract

An experiment was conducted to determine the growth response of African giant land snail *Archachatina marginata* fed diets containing different levels of sodium chloride. One hundred and twenty snails were subjected to four dietary treatments of T1, T2, T3 and T4 with 0, 0.25, 0.5 and 0.75% sodium chloride respectively. The treatments were replicated thrice with 10 snails per replicate. The measured parameters included weight gain, feed intake, shell length, shell circumference and shell thickness. Feed cost, cost of feed per kg weight gain and feed conversion ratio were also calculated. Results showed that there were significant differences ($p < 0.05$) in average daily weight gain, average daily feed intake, feed conversion ratio, feed cost and shell thickness but there were no significant differences ($p > 0.05$) in cost of feed per kg weight gain, shell length and shell circumference in the snails fed the treatment diets. Treatment 2 had the highest average daily weight gain, average daily feed intake and feed cost but the lowest feed conversion ratio while treatment 1 had the lowest average daily weight gain, average daily feed intake and feed cost but the highest feed conversion ratio. This implies that inclusion of sodium chloride above 0.25% in the diet of *Archachatina marginata* affects both the feed intake and weight gain of the snails.

Speaker Publications:

1. Ani A. O., Ugwuowo L. C., Osita C. O and Alutu O. N. (2012). Effect of Dietary Fibre and Supplementary Enzyme Levels on Nutrient Utilization and Haematological Indices of Pullet Chicks. Report and Opinion. Vol. 4(10) Pp 30-36.
2. Ani A. O., Ugwuowo L. C., Osita C. O., and Alutu O. N. (2012). Performance of Pullet Chicks Fed Different Levels of Dietary Fibre and Supplementary Enzyme. Research Opinion in Animal and Veterinary Sciences.
3. Ani A. O., Amalu S. N., Ugwuowo L. C. and Osita C. O. (2012). Effects of graded levels of Toasted Bambara Nut Offal and Supplementary Enzyme on Haematological Parameters and Organ Weights of Haco-cockerels. Global Journal of Bio-Science and Biotechnology. Vol. 1 (1) 2012: Pp 6-11.
4. Ani A. O., Ogbu C. C., Abakasanga, I. U and Ugwuowo, L. C. (2012). Response of broiler birds to varying dietary levels of Gongronemalatifolium leaf meal. Journal of Biology, Agriculture and Healthcare, 3(14): 67-74.
5. Ani A. O, Omeje O. D and Ugwuowo L. C. (2012). Effects of raw bambara nut (*Voandzeia subterranean* L) waste and enzyme complex, on growth performance and apparent nutrient retention in broiler chickens. African journal of Biotechnology. Vol. 11 (56), pp. 11991-11997, 12 July, 2012.
6. Ugwuowo L. C. and Ani A. O. (2011). Performance and Carcass Characteristics of African Giant Land Snail (*Archachatina marginata*). International Journal of Science and Nature. Vol. 2(3) 2011:575-581.

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Biography:

Dr. Ugwuowo Leonard Chidi has completed his PhD at the age of 37 years from University of Nigeria Nsukka and is currently lecturing at Nnamdi Azikiwe University Awka, Nigeria. He has published more than 22 papers in reputed journals and has been serving as an editorial board member of two reputable journal. He also review articles for more than ten journals.