

Performance characteristics of Tortoises (*Kinixys Spp*) fed boiled Cocoyam mixed with palm oil under different watering regimes in captivity in tropical environment

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This study was carried out to determine the performance characteristics of African hinged back tortoise (*kinixys spp*) under different watering regimes. Sixteen (16) tortoises with weight ranges from 150 to 675g were randomly distributed into four treatment groups and each treatment was allotted with four tortoises. The watering regime serves as the treatment group, these were; *Ad libitum* watering (07.00-07.00hrs), 12 hour daily watering (0700-1900hrs), 6 hour daily watering (1300-1900hrs) and 12 hour night watering (1900-0700hrs) serving as treatments 1,2,3 and 4 respectively. All the animals were fed *ad libitum* the on boiled cocoyam mashed and mixed with palm oil. Parameters on feed intake, water intake, weight changes, and blood metabolites were collected and used to assess their performance. The study lasted for five weeks, however, a pre experimental period of two weeks was allowed for adaptation of the animals. The results obtained showed that the mean water consumption for the treatments 1, 2, 3 and 4 where 152mls, 179mls, 58mls, and 81mls respectively and the mean feed intake were 24.70g, 17.60g 15.80g and 25.20g respectively, revealing that the animals served water at night consumed more feed, followed by those watered 24 hour

daily. The least feed consumption was recorded for animals watered in the afternoon for only 6 hour per day. Also, the values obtained for the weight increment for the treatments were 75g, 38g, 63g and 175g for treatments 1, 2, 3 and 4 respectively. This indicates that the highest weight gain was recorded for animals under the 12 hour night watering regime followed by those under the *ad libitum* watering regime. The least weight gain was recorded in the group of animals under the 12 hour day treatment. The analysis of some blood metabolites showed the packed cell volume ranges from 23.5 to 33.5%, total serum protein 5.85 to 5.90g/dl, serum albumin 3.00 to 3.20g/dl and serum globulin 2.70 to 2.90 g/dl. Results obtained from the experiment showed that the mean feed and water intake were affected by the duration of watering that the animal was subjected to, however, the blood metabolite were not influenced by the watering regime.

Keywords: Performance, Tortoises (*Kinixys Spp*), Different Watering Regimes in Captivity

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