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Área do trabalho: Nutrição e produção de não-ruminantes

Evaluation of different types of diet on the performance of *Tenebrio molitor* larvae

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Currently, the demand for alternative proteins is gaining prominence in the global market. According to the UN (2019), the population is expected to reach 9.7 billion people by 2050, and considering this growth, the population began to see in edible insects, a great potential for the production of food for humans and animals. Insects are considered highly nutritious, standing out as a possible food of the future, because they present high sources of proteins, lipids, minerals and vitamins (LUCAS et al., 2021). Furthermore, its creation produces less environmental impact, reducing the use of natural resources. Searching for food alternatives, the objective of this work was to evaluate the effect of different foods on the performance of *Tenebrio molitor* larvae. The experiment was carried out at the Parasitology Laboratory of the Federal University of Alagoas (UFAL) – Campus Arapiraca. Initially, 220 *Tenebrio molitor* larvae were selected per treatment, being subjected to five treatments with four replications. Five diets were used: T1: Wheat Bran (FT), considered the control diet, T2: Forage Palm (PF), T3: Palm + Soybean Bran (PFS), T4: Palm + Cassava Leaf (PFM) and T5: Palm + Corn + Cassava Leaf (PMM). In each repetition, 1 g of food was added per larva, totaling 220 g of diet per repetition, 880 g per treatment. The experiment lasted one month. To obtain a quantitative analysis, weekly weighings were carried out for each repetition using an analytical balance. The data were subjected to analysis of variance and comparative test between means. 5% probability by the Tukey test, through the Statistical and Genetic Analysis System - SAEG program. There was no difference between the initial and average weight of the larvae in any of the treatments ($P > 0.05$). At 30 days, the PMM diet showed the highest average daily gain followed by the control diet (FT). The PF, PFS, PFM diets presented the lowest ADG values, not being different from each other. In view of what was seen, it is concluded that diets containing cactus, cassava leaves and corn have potential for the production of *Tenebrio molitor*.

Keywords: food, diet, entomophagy, alternative protein.