

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

INCLUSION LEVELS OF SOYBEAN OIL IN THE NUTRITION OF *TENEBRIO MOLITOR* LARVAE

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The *Tenebrio molitor* larvae are used as food for fish, birds, reptiles and small insectivorous mammals. In commercial production are kept on substrate composed of poultry feed and additives such as soybean oil. The objective of this work was to evaluate the inclusion of different levels of soybean oil in the feeding of the larval phase of these insects. It was used a completely randomized design, consisting of 5 experimental treatments (0, 5, 10, 15 and 20% soybean oil in 200 g of substrate, consisting of 100 g of feed for quails and 100 g of wheat bran) with eight replicates, totalizing 40 plastic pots and 37 larvae per pot. The experiment lasted 3 months, being evaluated monthly by counting, highest and lowest measured larva per pot and total weighing. The means were submitted to regression analysis. In the first evaluation the counting presented a quadratic result and the other variables presented a linear decreasing effect ($p < 0.0001$). In the second evaluation, only weight presented quadratic results and the other decreasing linear effects ($p < 0.0001$). In the third evaluation, the count and larvae of larger size presented a quadratic effect and the larva of smaller size and weight had a linear decreasing effect. The inclusion of more than 5% of soybean oil had a deleterious effect on the larvae, since in all the evaluations there was a decrease in the quantity, size and total weight of the same. The excess of lipids may have potentiated the oxidation of the feed used, negatively influencing the metabolism of the other nutrients. In the flasks with the highest levels of oil, no galleries made by insect larvae were observed, a fact observed in the control treatment and 5%, suggesting a negative action on the feeding and possibly movement of the larvae. The counting, total weight and measurement of *Tenebrio molitor* larvae had no negative effect with the inclusion of up to 5% of soybean oil in the feeding.

Keywords: feeding, insect, lipids, mealworm

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