

EFFECT OF THREE DIFFERENT SUBSTRATES ON THE GROWTH OF BLACK SOLDIER FLIES LARVAES *Hermetia illucens* (L. 1758) AIMED FOR *Clarias gariepinus* FEEDING

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Abstract

The present study has been conducted at the Wakwa Agricultural Research Center. It was focused on the use of three different substrates on the growth of black soldier fly larvae and the effect of these in foods manufactured for *Clarias gariepinus* (African catfish). Specifically, it was a question of evaluating the growth indices of black soldier fly larvae subjected to corn bran, cow dung and the mixture consisting of corn bran and cow dung. And to evaluate the quality of the food formulated by these larvae from the three substrates. To achieve this, we first set up the devices and launched the rearing of black soldier fly larvae under the conditions described by (Gougbedji, Mahouan Ulrich, 2022). Here, 90g of four-day-old black soldier fly larvae were randomly distributed into nine tanks (50cm x 30cm x 15cm) comparable to each other, and subjected to three treatments for fourteen days. These treatments included the SM diet (corn bran), consisting of 10kg of corn bran, the BV diet (cow dung) consisting of 10kg of cow dung, and finally the M diet (mixture) consisting of 5kg of corn bran and 5kg of cow house. After harvesting the larvae, they are weighed, immobilized in boiling water then dried and crushed before being analyzed with the other ingredients of a part, then, the foods formulated using the application Feed Access was also analyzed. Secondly, we designed an extruder to manufacture extruded foods. From this methodical approach. It appears that the black soldier fly larvae of diet M present after fourteen days of growth the highest morpho-biometric characteristics. In particular the average weight with 180 mg followed by the RT diet: 177 mg then the R3 diet: 103 mg finally the R2 diet: 78 mg.

Key words: *Clarias gariepinus*, *Hermetia illucens*, substrates, pre-pupae