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Study on the production of insect protein on poultry manure and organic waste using houseflies

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Abstract

In this project, in order to find new sources of protein in poultry and aquatic nutrition, the breeding and harvesting of domestic fly larvae was controlled and larvae isolation done. To do this, a reproducing box and ramp were designed to isolate fly larvae, which were very useful at the laboratory level. The litters used were identical (100 g dry litter + 300 g water) inside these boxes and reproducing flies were randomly assigned. Four types of litter (chicken manure, cattle manure, sheep manure and fruit waste) were used at two temperatures of 20 and 30 ° C for larval propagation. Experimental data showed that among the substrates tested for fly larvae, chicken manure was significantly better than sheep manure and fruit waste. Cattle manure was in second place and different temperatures did not affect the amount of larval production. On average, the raw protein content of larval fly powder was 51.95%, and the larvae produced by each of the experimental treatments (substrate) did not differ in chemical composition. The estimated cost of larval powder for chicken manure, cow manure, sheep manure and fruit wastes was 7576.53, 8176.74, 4688.32 and 8054.95 Toman respectively. It is concluded that the production and extraction of larvae of flies is possible in a controlled style and chicken manure is the best substrate for this purpose.

Keywords: House flies, Larvae, Protein, Rearing