



**INVESTIGATION ON SYNERGISTIC ANTHELMINTIC POTENTIAL OF
PAPAYA-PUMPKIN SEEDS AGAINST EARTHWORM
(*PHERETIMA POSTHUMA*)**

By

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DECLARATION

I hereby declare that this thesis is very original work and has not been submitted previously or currently for any author degree at UiTM or any other institution.

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ABSTRACT

Carica papaya (papaya) and *Cucurbita maxima* (pumpkin) have been used for treatment in many types of diseases for centuries. The crude aqueous extracts of both *Carica papaya* and *Cucurbita maxima* seeds were assayed synergistically against adult earthworms (*Pheretima posthuma*) for the evaluation of anthelmintic activity and compared with the standard drug, Albendazole. In this study, the traditional method was used; boiling and evaporation method. Various concentrations of the extracts and Albendazole were tested at 60 mg/ml, 40 mg/ml and 20 mg/ml. Six earthworms were immersed in three concentrations of each extracts; papaya-pumpkin seeds and Albendazole. Confirmation of paralysis was reported when decreased in movement after shaken vigorously. Death was recorded after ascertaining that the worms neither moved when shaken vigorously nor dipped in warm water of 50°C. Results were expressed in terms of time for paralysis (P) and death time (D) of worms using mean SD and data analysis by One-way Anova. Interestingly, the time of death for worms showed that the crude aqueous extracts of seeds at concentration of 20 mg/ml could totally exterminate the worm at the shortest time (111.50 ± 4.95) compared to Albendazole (112.50 ± 4.96). In conclusion, the combination of *Carica papaya* and *Cucurbita maxima* is a good option to be taken as an alternative medicine in treating cases of intestinal worm infections.

Keywords: Anthelmintic, *Pheretima posthuma*, *Carica papaya*, *Cucurbita maxima*,

Albendazole, synergistic.