

In vitro Larvicidal Activity of Varying Concentrations of Madre De Cacao (Gliricidia sepium) Concentrated Crude Ethanolic Extract against Larvae of Horn Fly (Haematobia irritans)

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Abstract : A study on in vitro larvicidal activity of different levels of Madre de Cacao (Gliricidia sepium) concentrated crude ethanolic extract (CCEE) against horn fly larvae (Haematobia irritans) was conducted. The air-dried leaves of Gliricidia sepium were infused in a 1:3 ratio (w/v) using ethanol as solvent and concentrated in a rotary evaporator (60°C). A total of 120 larvae of Haematobia irritans were exposed in various concentration: 200, 400, 800 and 1000 ppm. Based on the result after 5 hours of exposure, CCE G. sepium extract at 200 ppm showed less effect with 30% mortality compared to 400 ppm, 800 ppm and 1000 ppm with 70%, 83%, and 100% mortality, respectively. Findings also revealed that CCE of G. sepium extract at 1000 ppm, 800 ppm, and commercial larvicide were comparable in causing mortality of H. irritans larvae from the first hour up to the fifth hours of exposure. However, on the fifth hour, 400 ppm was also found to be effective. This suggests that the higher the concentration of CCE G. sepium extract and the longer the time of exposure, the higher is the percentage mortality of the larvae. Thus, CCE G. sepium extract can be used as an alternative for commercial larvicide.

Keywords : horn fly, in vitro, larvicidal, Madre de Cacao

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