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(57) Abstract :

ABSTRACT: Title: A Bio-Degradable Mosquito Larvicidal Formulation and Method of Preparing the Same The present disclosure proposes a bio-degradable mosquito larvicidal composition (100) that utilizes enzymes (Papain-like cysteine proteases (PLCP)) and ricin protein (104) derived from plants to enhance larvicidal activity, thereby presenting a viable alternative to chemical insecticides. The mosquito larvicidal composition (100) comprises 30 to 35 weight percentage of Carica papaya latex (102), and 65 to 70 weight percentage of ricin protein (104) from castor seeds. The mosquito larvicidal composition (100) is bio-degradable with cysteine protease of Carica papaya having a larvicidal preventive effect that destroys peritrophic membrane of the mosquito larvae in water bodies to which it is applied, thereby enhancing the larvicidal activity. The proposed mosquito larvicidal composition (100) is effective in killing mosquito larvae even in small amounts of fresh milky latex, whether diluted with deionized water or dried and reconstituted.

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