“Biorational insecticides as alternatives in pest control”

"المبيدات الطبيعية كبدائل في مكافحة الآفات"

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(1): Abstract

. We have establishment mosquito, *Culex pipiens* rearing at our laboratory because this insect play a pivotal role in health importance in this area. Furthermore, this species have been generated to get homogenous and susceptible strain. Next, collection of certain plants from Al-Hassa region for isolation the active crude compounds naturally occurs in the plants. Collected plants were dried using an oven at 50^{o}C for 4 days. Dried plants were ground to fine powder in electrical homogenizer mixed with liquid nitrogen for 1-2 min. Then, the fine powders were transferred in plastic bags tightly closed by thermal electric machine and kept in –20^{o}C until use for extraction. The extraction of chosen plants has been performed using standard methods. The extracted crude compounds were tested against mosquito larvae. The data showed that certain of these extracted material dramatically effective as larvicidal compounds, however, some of them had or had no effect. These data shed the light on promising alternative way in plant derived compounds for pest management would be achieved instead of synthetic insecticides. In addition, ribosome-inactivating protein (RIP) have been isolated from castor bean and separated by sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). The analysis of SDS-PAGE showed that the crude protein having the molecular weight of RIP at approximately 30,000 dalton. However, the data showed that RIP at 100 ug/ml had no effect on the hatchability of mosquito egg-masses and had no larvicidal effect.