Qusti, S.^a, Omara, S.M.^b, El Sawi, N.M.^a, Al-Ghamdi, K.M.^b, Mahyoub, J.A.^b, Al-Yahya, H.S.^b, Saleh, M.S.^c Evaluation of some plant extracts of neem Azadirachta indica A. Juss and Nerium oleander Linn. against mosquito larvae of Aedes aegypti

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Abstract

The biological effects of neem seed kernel extracts of Azadirachta indica and flower extracts of Nerium oleander against mosquito larvae of Aedes aegypti have been evaluated. The results indicated that the test extracts did not appear to give high percentages of mortality against larval stages of. A. aegypti. However, taking IC50 values (concentration which to inhibit the emergence of 50% of mosquito adults survived from larval treatments) into consideration, the acetonic extract of neem seeds (28 ppm) proved to be more effective against A. aegypti than the ethanolic extract (37 ppm) by about 1.3 times. On the other hand, the records indicated that the ethanolic extract of N. oleaner white flowers proved to be the most effective extract against A. aegypti, followed by the acetonic white flower extract and the aqueous red flower extract while the crude extract of white flowers was the least effective one. This was highly pronounced on the basis of IC50 values which were 50, 68, 110 and 140ppm, respectively. Variations in the susceptibility levels of A. aegypti mosquito larvae may probably due to differences in the levels of toxicity among the active ingredients of plant extracts and the type of solvents used.

Author Keywords

Aedes aegypti; Mosquito larvae; Plant extracts; Susceptibility status

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