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TITLE

Anti bacterial activity and non-phytotoxic nature of neem oil nanoemulsion

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Environmental problems created by overuse of synthetic pesticides can be overcome by pesticides derived from plant sources. The aim of the study is to determine the anti bacterial activity and phytotoxicity of formulated neem oil nanoemulsion. Neem oil nanoemulsion of size 31 nm was obtained using high energy method. Anti bacterial activity was studied against E.coli (ATCC DH5α, 25922), Staphylococcus aureus (ATCC 25923) and Bacillus pumilus. Nanoemulsion of size 31 nm was observed to have better anti bacterial activity compared to other two sizes (95 nm and 250 nm). In vitro and In vivo studies were carried out against three plant systems (Lycopersicum esculentum, Cucumis sativus and Zea mays). Formulated nanoemulsions were found to be non toxic against plants. From the present study, formulated nanoemulsion was observed to have better anti bacterial activity and non toxic to plant systems.

Biography

C H has completed her Ph.D at the age of 25 years from Vellore Institute of Technology. She is currently working as a research Associate for CSIR funded Project in Centre for Nanobiotechnology, VIT University. She has published 3 papers in International Journals.