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Bioremediation of Pesticides

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ABSTRACT: The extensive use of pesticides in agricultural fields leads to the accumulation of hazardous chemicals in the environment. To overcome this problem bioremediation of pesticides has come across as an effective solution. The study here focuses on the degradation potential of *Pseudomonas* sp. towards the organopesticides such as Malathion and Cypermethrin. The growth of *pseudomonas* sp., isolated from the Bajra and Makka crops, was assessed in the separate cultures containing Cypermethrin and Malathion as the sole carbon source. The range chosen for the concentration of pesticides in the study was till 50 ppm. The results showed the ability of bacteria to grow in both the pesticides while also showing their ability to degrade them. To support the results CFU count, total cell dry weight estimation, Bradford assay etc. were also performed. It was observed that Malathion worked as a better carbon source than the Cypermethrin and also greater degradation activity was obtained in the cultures containing the Malathion than the Cypermethrin. This opens further prospects of characterization of these bacterias and would suggest that the same can be used to remediate soil contaminated with pesticides.© 2016 iGlobal Research and Publishing Foundation. All rights reserved.

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