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## EFFECTS OF NEONICOTINOID IN SURFACE WATER AND SOIL IN SUGARCANE FIELD AT ARIYALUR AND NAMAKKAL DISTRICTS

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### Abstract

The use of Neonicotinoid was generally basic in every cultivation land of the world. Neonicotinoid incorporates seven distinct sorts of insecticides. This research involved in finding the excess presence of imidacloprid in various regions of soil and surface water at Ariyalur and Namakkal areas. The samples required for finding Neonicotinoid in the soil and surface water at the inside and outside of the selected sugarcane field were collected. The soil samples were collected 15 cm below from the upper soil profile and water samples were gathered from the surface water. The testing of Neonicotinoid includes toxic substance limit, carbon, NPK content values in the various zones of soil, water samples were examined by using the lab equipment. To reduce the serious impact of excess toxic neonicotinoid, nitrogen, the carbon content in the soil, water, the reasonable strategies were embraced. The concentration of the above lethal breaking points was controlled and corrupted by the utilization of *Enterobacter asburiae*. This research exhibits the hazard appraisal, beneficial proportions of Neonicotinoid in the soil, the role of bacterial degradation.

*Keywords:* bacterial degradation, neonicotinoid, soil, sugarcane field, surface water

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