The Significant Agrohomeopathic Effect of Natural Extracts on Acheta domesticus

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Acheta domesticus is better known as the “common cricket” which is an orthoptera insect. High concentrations of Acheta domesticus can cause damage in crops. The purpose of this study was to gradually minimize the frequency of the nervous impulses of Acheta domesticus, so that the insect will not have enough energy to ruin crops. Today, industries use chemical insecticides that cause environmental pollution (Edwards, 1973). Given this problem, there is a continual need to use natural extracts to control their population in an agrohomeopathic way. The natural extracts of Allium sativum, Piper nigrum, Urtica dioica, and Nicotiana tabacum were created based on water, stems, seeds and leaves. Before the experiment, the nervous impulses were measured with the SpikerBox. Sixty Acheta domesticus were equally distributed into five receptacles. Natural extracts containing 30% concentration of solute were applied in two doses where each receptacle was exposed to a different extract. The second dose was applied after 24 hours of the first dose. The change in nervous impulses and behavior was observed after four hours of each dose. The study findings indicate that no major change in behavior and nervous impulses occurred following the first dose. However, after the second dose, there was a significant reduction in the nervous impulses. Urtica dioica was the most effective natural extract that reduced the nervous impulses from 40 Hz. to 20 Hz. The findings demonstrate that natural extracts can be effectively used to control Acheta domesticus in a cost-effective way without harming the environment and society.

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