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| (61) Patent of Addition to Application Number | :NA | 1)Santhanakrishnan Anitha |
| Filing Date | :NA | Address of Applicant :Phyto Insecticide Research Laboratory, Department of Entomology, Annamalai University Annamalai Nagar Chidambaram Tamilnadu India Chidambaram ----- |
| (62) Divisional to Application Number | :NA | 2)T. SELVAMUTHUKUMARAN |
| Filing Date | :NA | Address of Applicant :Phyto Insecticide Research Laboratory, Department of Entomology, Annamalai University Annamalai Nagar Chidambaram Tamilnadu India 608002 Chidambaram ----- |

(57) Abstract :

Method of preparing nanoporous sponge formulations with essential oil for stored product's pest management comprises formulation of A. calamus essential oil loaded chitosan-sodium alginate nanoporous sponge in the ratio 1:1. The said formulation is evaluated through a bioassay method called Relay Release Bioassay simulating field condition. The results clearly demonstrated the formulation's superiority in efficiently managing the pulse beetle. The highest per cent repellence, per cent mortality, per cent oviposition deterrence, lowest per cent egg hatch and F1 progeny inhibition rate were recorded in the treatment receiving Nanoporous sponge formulation.

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