

Bio-Efficacy of Vermiwash and Leaf Extracts against Mealy Bug, *Paracoccus marginatus* Hemiptera: Pseudococcidae

Authors : Radha Rajamma, Susheela Palanisamy

Abstract : The use of chemical fertilizers and pesticides has posed a serious threat to the environment, cause disturbance to the soil ecosystem, pollute the water causing serious health problems. The indigenous practices such as herbal spray, phyto-alternatives, etc. offer harmless alternatives in integrated pest management. The use of plant materials has become an integral part of insect pest management because of their cheap and non-toxic nature. Hence an investigation has been made to determine the bio-efficacy of vermiwash and two leaf extracts, *Azadirachta indica* and *Vitex negundo* against mealy bug, *Paracoccus marginatus*. The results on the effect of vermitechnologies on the activity of mealy bug indicated the effectiveness of vermiwash foliar application in suppressing the pest activity. Accumulative mortality of mealy bug increased gradually with the increase of exposure intervals. The combined treatment of vermiwash with *Azadirachta indica* reported the highest mortality percentage of 96% followed by the individual treatment of leaf extracts. Hence vermiwash was proved to be the most effective in enhancing the potency of mealy bug and decreased LC50 of the target insect.

Keywords : *Azadirachta indica*, *Paracoccus marginatus*, vermiwash, *Vitex negundo*

Conference Title : ICZWA 2017 : International Conference on Zoology and Wild Animals

Conference Location : Paris, France

Conference Dates : November 20-21, 2017