

PERSISTENSI TOKSISITAS BIOINSEKTISIDA SPHEREFIX™ PADA BEBERAPA TIPE TEMPAT PERINDUKAN NYAMUK *Aedes aegypti* L.

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ABSTRACT

Spherefix™ bioinsecticide is microbial agent of Bacillus sphaericus H-5a5b (VCRC B42) showing high potency for vector control. The bioinsecticide highly specific to target insect, and do not produce any adverse environmental impact, so the bioinsecticide would be very promising agent for vector control, especially vector of dengue haemorrhagic fever in Indonesia.

The present studies aimed at observing the toxicity persistence of Spherefix™ on the larvae of Aedes aegypti L. in some types of water container, and recycling potencies in the breeding places of A. aegypti.

Two steps of the studies were carried out under laboratory conditions. First step were reared mosquitoes in the laboratory to supply larvae of A. aegypti. Second step testing of Spherefix™ toxicity persistence in the cemented, clay, and plastic containers. The bioinsecticides were prepared by Vector Control Research Centre (VCRC), India. The toxicity persistence of Spherefix™ on the larvae of A. aegypti L. in some types of water container were decided by probitt analysis. The toxicity persistence tests were carried out by time series observation on the day 1, 6, 12, ..., and 120.

The results showed that difference toxicity persistence of the Spherefix™ in the breeding places of A. aegypti. The cemented container was found to have longest of toxicity persistence of the Spherefix™, followed by the plastic container, and the clay container has the shortest duration toxicity persistence. The higher concentration of the bioinsecticides, will result in higher toxicity persistence. The Spherefix™ showed recycling potency in the breeding places of A. aegypti. Percent mortality of the larvae dropped sharply after day 50, and larvae mortality under 5% after day 78.

Key Words : *Spherefix™ bioinsecticide, breeding places, toxicity persistence, Aedes aegypti.*