Efektivitas Bacilllus thuringiensis israelensis dalam pemberantasan larva Aedes aegypti di Kecamatan Cempaka Putih, Jakarta Pusat

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Abstrak

Demam berdarah dengue (DBD) merupakan masalah kesehatan masyarakat di Indonesia terutama di DKI Jakarta yang memiliki insidens DBD tertinggi di Asia Tenggara.Pemberantasan DBD hingga kini hanya dapat dilakukan melalui pemberantasan vektor antara lain dengan pengendalian biologis menggunakan Bacillus thuringiensis israelensis (Bti). Tujuan penelitian ini adalah mengetahui efektivitas Bti cair dalam menurunkan kepadatan Ae.aegypti. di daerah zona merah DBD yaitu Kecamatan Cempaka Putih (Kelurahan Cempaka Putih Barat dan Kelurahan Rawasari, Jakarta Pusat. Penelitian ini menggunakan desain quasi-eksperimental dengan intervensi aplikasi Bti cair dengan konsentrasi 4 mL/m2. Survai entomologi dilakukan di 100 rumah menggunakan single larval method pada bulan Maret dan April 2010. Efektivitas Bti dianalisis dengan uji McNemar.Sebelum aplikasi Bti di Kelurahan Rawasari didapatkan 15 TPA positif larva Ae.aegypti dari 203 TPA dan di Kelurahan Cempaka Putih Barat didapatkan 9 TPA positif larva Ae.aegypti dari 189 TPA. Sesudah aplikasi Bti di Kelurahan Rawasari masih didapatkan 12 TPA positif larva Aedes sedangkan di Kelurahan Cempaka Putih Barat tidak didapatkan penurunan container positif larva Ae.aegypti (uji McNemar p=0,629). Disimpulkan Bti tidak efektif menurunkan kepadatan populasi Ae.aegypti.
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Abstract
Dengue hemorrhagic fever (DHF) is apublic health problemin Indonesia, especially in Jakarta, whichhasthe highest incidence of DHF in South East Asia. So far DHF control can only be done through vector (Ae.aegypti) elimination including biological control using Bacillus thuringiensis israelensis (Bti). The purpose of this study was to determine the effectiveness of liquid Bti in decreasing the density of Ae.aegypti in DHF red zone in District Cempaka Putih (West Cempaka Putih Village and Rawasari Village, Central Jakarta). This study used quasi-experimental design with liquid Bti application on 4 mL/m2 concentration as the intervention. Entomology survey was conducted in100 houses using a single method larval in March and April 2010. Effectiveness of Bti was analyzed by McNemar test. Prior Bti applications in the Rawasari Village, 15 of 203 water containers were positive with Ae.aegypti larvae and in the West Cempaka Putih Village 9 of 189 water containers was positive. After application of Bti in the Rawasari Village,12 water containers were still positive while in the West Cempaka Putih no reduction of Aedes aegypti larvae (McNemar test p=0.629) was found. It is concluded that Bti is not effective in controlling the population density of Ae.aegypti.