

DESCRIPTION OF MOSQUITO DENSITY BASED ON THE LARVITRAP
INDEX AT VARYING SETTLEMENT DISTANCES FROM LIVESTOCK
PENS IN SIDOMOYO, GODEAN, SLEMAN

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ABSTRACT

Background: Dengue Hemorrhagic Fever (DHF) remains a major vector-borne public health problem in Indonesia. The presence of livestock pens located close to residential areas may influence environmental conditions that support the breeding of *Aedes* mosquitoes as dengue vectors. Larval surveillance using larvitrap can be used to describe vector density through the Larvitrap Index (LI).

Objective: To describe the density of mosquito based on the larvitrap index at varying residential distances from livestock pens in Sidomoyo, Godean, Sleman.

Methods: This study used a descriptive observational design. The sample consisted of 20 houses divided into four distance categories from livestock pens (≤ 25 m, ≤ 50 m, ≤ 75 m, and ≤ 100 m). Two larvitrap were installed in each house, consisting of one indoor and one outdoor larvitrap, resulting in a total of 40 larvitrap. Data were analyzed descriptively using frequency distribution and Larvitrap Index calculation.

Results: A total of 27 out of 40 larvitrap were positive for *Aedes* larvae, with an overall Larvitrap Index of 67.5%. The highest LI was found at distances ≤ 25 m and ≤ 50 m (80%), while the lowest was at ≤ 100 m (40%). Indoor larvitrap showed a higher OI (75%) compared to outdoor larvitrap (60%).

Conclusion: The closer residential distance to livestock pens, the higher the density of larvae. All observation sites showed potential risk for dengue vector presence.

Keywords: dengue hemorrhagic fever, larvitrap, Larvitrap Index, livestock pens

GAMBARAN KEPADATAN NYAMUK BERDASARKAN INDEKS
LARVITRAP PADA VARIASI JARAK PERMUKIMAN DARI KANDANG
TERNAK DI KELURAHAN SIDOMOYO, GODEAN, SLEMAN

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ABSTRAK

Latar Belakang: Demam Berdarah *Dengue* (DBD) merupakan penyakit berbasis vektor yang masih menjadi masalah kesehatan masyarakat di Indonesia. Keberadaan kandang ternak yang berdekatan dengan permukiman diduga memengaruhi kondisi lingkungan yang mendukung perkembangbiakan nyamuk *Aedes* sebagai vektor DBD. Surveilans larva menggunakan *larvitrap* dapat digunakan untuk menggambarkan kepadatan vektor melalui nilai *Larvitrap Index* (LI).

Tujuan: Mengetahui gambaran kepadatan nyamuk berdasarkan indeks *larvitrap* pada variasi jarak permukiman dari kandang ternak di Kelurahan Sidomoyo, Godean, Sleman.

Metode: Penelitian ini merupakan penelitian deskriptif observasional. Sampel penelitian sebanyak 20 rumah yang dibagi ke dalam empat variasi jarak dari kandang ternak (≤ 25 m, ≤ 50 m, ≤ 75 m, dan ≤ 100 m). Pada setiap rumah dipasang dua *larvitrap*, yaitu *indoor* dan *outdoor*, sehingga total *larvitrap* sebanyak 40 unit. Data dianalisis secara deskriptif menggunakan distribusi frekuensi dan perhitungan *Larvitrap Index* (LI).

Hasil: Sebanyak 27 dari 40 *larvitrap* ditemukan positif larva dengan *Larvitrap Index* keseluruhan sebesar 67,5%. Nilai LI tertinggi ditemukan pada jarak ≤ 25 m dan ≤ 50 m sebesar 80%, sedangkan terendah pada jarak ≤ 100 m sebesar 40%. *Larvitrap indoor* menunjukkan nilai OI lebih tinggi (75%) dibandingkan *outdoor* (60%).

Kesimpulan: Semakin dekat jarak permukiman dengan kandang ternak, semakin tinggi kepadatan larva. Seluruh lokasi penelitian menunjukkan potensi risiko keberadaan vektor DBD.

Kata Kunci: DBD, *larvitrap*, *Larvitrap Index*, kandang ternak