
English Summary

THE MALARIA VECTOR IN TELUK DALAM SUBDISTRICT, NIAS

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A field study on malaria vectors has been conducted on 1995, in three villages which were located in coastal and inland areas of Teluk Dalam subdistrict of Nias island, North Sumatra Province.

The results of this study showed that the suspected malaria vectors in those areas were *An. nigerrimus*, *An. sundaicus*, *An. kochi*, *An. barbirostris* and *An. sinensis*. Two species were confirmed as malaria vector, i.e. *An. tessellatus* and *An. sinensis*, which were detected positive sporozoite using ELISA test and squash method, respectively.

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Dtb, Sn, Ts, M, S*

THE EFFICACY OF B.SPHAERICUS 2362 (SPHERIMOS PP) ON ANOPHELES SPP. LARVAE

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A study using the biological agent *B. sphaericus* 2362 (Spherimos PP) was conducted in the Vector Control Research Station laboratory in Salatiga. It was also

applied to ricefields belonging to inhabitants of Bawonifaoso village. Teluk Dalam Sub District, Nias Regency. These ricefields were breeding sites for *Anopheles spp* larvae. The aim of this study was to determine the efficacy of powder formulation of *B. sphaericus* 2362 (Spherimos PP) against *Anopheles* larvae in the laboratory as well as in the field.

The effect of Spherimos PP toward *Anopheles* larvae in the laboratory was conducted according to WHO guidelines to assess the lethal concentrations (LC50 and LC90), calculated through the probit analysis:

Laboratory test showed that after 24 hours of exposure, the LC50 and LC90 values calculated for early fourth-instar larvae of *An. sinensis* were 0.0079 ppm and 0.0211 ppm respectively. While after 48 hours of exposure, the LC50 and LC90 were estimated as 0.0058 ppm and 0.0083 ppm respectively.

In the field test, the efficacy of Spherimos PP dosage of 0.016 ppm on *Anopheles spp* larvae was maintained for 21 days, while dosages of 0.08 ppm and 0.8 ppm were maintained for 35 days with reduction of larval population density of more than 50%.

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Uw, B, M*

THE EFFICACY OF B. THURINGIENSIS H-14 (VECTOBAC G) ON ANOPHELES BARBIROSTRIS VD. WULP LARVAE IN LABORATORY SETTING

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A study was conducted in the Vector Control Research Station Laboratory in Salatiga, to determine the efficacy of *B. Thuringiensis* H-14 (Vectobac G) against *An. barbirostris* larvae. Laboratory tests showed that *B. Thuringiensis* H-14 at a dosage of 0.28 g/m² was effective against all larval instars of *An. barbirostris* which was provided with or without food consisting meat - rice bran mixed powder. Mortality was observed at 80% - 100%. A significant difference was observed in the mortality of fourth instar larvae provided with meat - rice bran mixed powder (80%) compared with seven other treatments (larval mortality ranged from 98.75% - 100%) ($p < 0.05$).

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PLASMODIUM BERGHEI INOCULATION ON SEVERAL STRAINS OF MICE

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Swiss derived, Balb/c and C3H strains of mice were stu-

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