

ABSTRAK

Widhawaty, Nurul. 2015. *Pengaruh Lama Penyimpanan Ekstrak Daun Pandan Wangi (Pandanus amaryllifolius) Terhadap Efektivitasnya Sebagai Larvasida Nyamuk Aedes sp*, Tugas akhir, Fakultas Kedokteran Universitas Brawijaya Pembimbing:(1) Dr.dr.Sri.Poeranto.Sp.Park.,M.kes. (2) dr.Siwipeni Irmawanti Rahayu,M.Biomed.

Penelitian terdahulu telah membuktikan bahwa ekstrak daun Pandan Wangi (*Pandanus amaryllifolius*) memiliki efek larasida terhadap larva *Aedes Sp* dengan ED₅₀ pada konsentrasi 300 ppm. Daun Pandan Wangi mengandung minyak atsiri, yang diperkirakan mempunyai efek larvasida, yang mempunyai sifat mudah menguap. Penelitian ini bertujuan untuk mengetahui pengaruh lama penyimpanan ekstrak daun Pandan Wangi (*Pandanus amaryllifolius*) terhadap efektivitasnya sebagai larvasida pada larva *Aedes Sp*. Penelitian ini merupakan penelitian eksperimental laboratoris dengan rancangan (*true eksperimental-postest only control group design*). Sampel yang digunakan adalah larva *Aedes*, konsentrasi yang digunakan adalah 200 ppm, 300 ppm dan 500 ppm dibagi dalam 5 perlakuan, yaitu lama penyimpanan 0, 3, 7, 15, 30 hari. Hasil persentase Kematian larva pada 200 ppm diperoleh secara berturut-turut adalah 27,5%, 20%, 17,5%, 12,5%, 0%. Analisis dengan *One-way ANOVA* didapatkan $p = 0,000$. Uji korelasi *Pearson* didapatkan persamaan nilai $p = 0,000$ dengan koefisien korelasi -0,877. Regresi linier didapatkan persamaan $Y = 4,756-0,083X$. Pada 300 ppm diperoleh persentase kematian larva berturut-turut 47,5%, 45%, 37,5%, 35%, 15%. Analisis dengan *One way ANOVA* didapatkan $p = 0,000$. Uji korelasi *Pearson* didapatkan nilai $p = 0,000$ dengan koefisien korelasi -0,911. Regresi linier didapatkan persamaan : $Y = 4,756-0,105X$. Sedangkan pada 500 ppm diperoleh persentase Kematian larva berturut-turut 100%, 100%, 100%, 97,5%, 65%. Analisis dengan *One way ANOVA* didapatkan $p = 0,000$. Uji korelasi *Pearson* didapatkan persamaan $Y = 10,535-0,117X$. Kesimpulan yang dapat diambil adalah lamanya penyimpanan sebanding dengan penurunan efektivitas daun pandan wangi sebagai larvasida yang akan menurunkan jumlah larva yang mati. Perlu adanya penelitian lebih lanjut untuk mengetahui faktor lain yang mungkin berpengaruh terhadap perubahan kandungan aktif ekstrak daun Pandan Wangi yang menurunkan efek larvasida.

Kata Kunci : Penyimpanan, Ekstrak Daun Pandan Wangi (*Pandanus amaryllifolius*), Larvasida, Larva *Aedes*.

ABSTRACT

Widhawaty, Nurul. 2015. Length of Storage Effect of *Pandanus amaryllifolius* Extract Against its Effectivity as Larvaside on Larae *Aedes*, Final Assignment, medical Faculty Brawijaya Univesity. Supervisors:
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Early experiment has proven that *Pandanus amaryllifolius* extract have larvacide effect against *Aedes*, larva with the ED₅₀ at 300 ppm. *Pandanus amaryllifolius* contains atsiri oil that acts as larvacide whicts extremely volatile. The purpose of this experiment is to investigate the effect of storage length time of *Pandanus amaryllifolius* extract to its effectivity as larvacide on *Aedes larva*. The design used in this experiment was true experimental-posttest only control group design. *Aedes larva* were used as sample. Day 0, 3, 7, 15 and 30 were set as the storage length time of the extract, 3 different concentration were used: 200 ppm, 300 ppm and 500 ppm. The result (%) for 200 ppm continuously are 27,5%, 20%, 17,5%, 12,5%, 0% of dead larvae. One-way ANOVA analysis gave significant result at level $p = 0,000$. Correlation analysis gave significant result at level $p = 0,000$ and coefficient of correlation -0,911. Regression analysis gave equation $Y = 4,756-0,105X$. The result (%) for 300 ppm respectively 47,5%, 45%, 37,5%, 35%, 15% of death larvae. One-way ANOVA analysis gave significant result at level $p = 0,000$. Correlation analysis gave significant result at level $p = 0,000$ and coefficient of correlation -9,911. Progression analysis gave equation $Y = 4,756-0,105X$. The result (%) for 500 ppm respectively are 100%, 100%, 97,5%, 65% of death larvae. One way ANOVA analysis gave significant result at level $p = 0,000$. Correlation analysis gave significant result at level $p = 0,000$ and coefficient of correlation -0,869. Regression analysis gave equation $Y = 10,535-0,117X$. The conclusion of this experiment is the reduction of *Pandanus amaryllifolius* effectivity as larvacide that will reduce the amount of larvae death were strongly correlated with its length of storage. Following experiment is needed to find another factor may effect on the amount of active substance in *Pandanus amaryllifolius* extract which can reduce its larvasidal effect.

Key Word : Storage, *Pandanus amaryllifolius* Extract, Larvacide, Larva *Aedes*

