INTISARI

DHARMA, V.K.C., 2019, AKTIVITAS LARVASIDA MINYAK ATSIRI UMBI RUMPUT TEKI (*Cyperus rotundus* Linn) TERHADAP LARVA NYAMUK *Anopheles aconitus*, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Umbi rumput teki (*Cyperus rotundus* Linn) memiliki aktivitas sebagai larvasida terhadap larva nyamuk *Anopheles aconitus.* Senyawa kimia yang terkandung dalam tanaman ini yang memiliki aktivitas sebagai larvasida yaitu alkaloid, flavonoid, tanin, terpenoid, dan minyak atsiri. Tujuan dari penelitian ini adalah untuk mengetahui aktivitas larvasida minyak atsiri umbi rumput teki terhadap larva nyamuk *Anopheles aconitus,* mengetahui konsentrasi minyak atsiri umbi rumput teki terhadap larva nyamuk *Anopheles aconitus* yang paling efektif dinyatakan dengan nilai LC_{50} dan $LC_{90.}$

Minyak atsiri umbi rumput teki yang didapatkan menggunakan metode destilasi uap air. Parameter minyak atsiri umbi rumput teki yang diamati adalah konsentrasi minyak atsiri umbi rumput teki 5 ppm, 10 ppm, 20 ppm, 40 ppm, 60 ppm, dengan kontrol negatif (tween 80) dan kontrol positif (abate). Pengamatan pengaruh minyak atsiri umbi rumput teki sebagai larvasida dilakukan dengan mengamati jumlah kematian larva dalam 24 jam setelah pemberian larutan uji, ditandai dengan matinya larva. Data yeng diperoleh dianalisis menggunakan ONEWAY ANOVA (signifikan p>0,05).

Hasil penelitian menunjukkan minyak atsiri umbi rumput teki memiliki aktivitas larvasida terhadap larva nyamuk *Anopheles aconitus* dengan konsentrasi teraktifnya nilai LC_{50} dan LC_{90} yaitu sebesar 15,462 ppm dan 33,566 ppm

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Kata kunci : Rumput teki (*Cyperus rotundus* Linn) LC_{50}, LC_{90}, larvasida, minyak atsiri, larva nyamuk *Anopheles aconitus.*

ABSTRACT

DHARMA, V.K.C., 2019, ACTIVITIES OF LARVASID OIL ATSIRI TUBER OF (Cyperus rotundus Linn) ON MOSQUITO LARVA *Anopheles aconitus*, TESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Ammonia grass puzzle (*Cyperus rotundus* Linn) has activity as larvacide against the larvae of *Anopheles aconitus* mosquitoes. The chemical compounds contained in this plant have activities as larvacides namely alkaloids, flavonoids, tannins, terpenoids, and essential oils. The purpose of this study was to study the activity of the puzzler tuber essential oil against *Anopheles aconitus* mosquito larvae, to study the concentration of the puzzler root essential oil against the most effective *Anopheles aconitus* mosquito larvae with LC_{50} and LC_{90} values.

The puzzler root essential oil obtained using the steam distillation method. The parameters of the puzzler essential oil observed were the concentrations of the puzzle grass tuber essential oil 5 ppm, 10 ppm, 20 ppm, 40 ppm, 60 ppm, with negative controls (tween 80) and positive control (abate). Observation of the effect of essential oils of puzzles as larvacide grass roots was carried out by observing the number of larval deaths within 24 hours after administration of the test solution, marked by the death of larvae. The data obtained were analyzed using ONEWAY ANOVA (significant $p > 0.05$).

The results showed that the grass grass essential oil had larvicidal activity against *Anopheles aconitus* mosquito larvae with the most active concentration of LC_{50} and LC_{90} that is equal to 15,462 ppm and 33,566 ppm

Keywords: Puzzles (*Cyperus rotundus* Linn), LC_{50}, $LC_{90,}$ larvacides, essential oils, larvae of *Anopheles aconitus* mosquitoes.