

**PROGRAM POLITEKNIK KESEHATAN KEMENKES
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TERAPAN**

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**Efektivitas Ekstrak Daun Catnip (*Nepeta cataria*) Sebagai Insektisida Nabati
Terhadap Kecoa Amerika (*Periplaneta americana*)**

xviii + 68 halaman + 15 tabel + 5 gambar, 3 grafik dan 6 lampiran

ABSTRAK

Kecoa merupakan serangga yang tergolong sebagai hama dan vektor beberapa macam penyakit sehingga populasinya perlu dikurangi. Tanaman yang berpotensi sebagai insektisida nabati adalah daun catnip (*Nepeta cataria*). *Nepeta cataria* memiliki daun dan batang berbulu halus yang memberi penampilan hijau. Tanaman ini mengandung *nepetalactone*, *alkaloid*, dan *atsiri* (Syamsuddin dan Andi, 2017). Tujuan penelitian ini untuk mengetahui efektivitas ekstrak daun catnip (*Nepeta cataria*) sebagai insektisida nabati terhadap kecoa amerika (*Periplaneta americana*).

Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) Faktorial, merupakan eksperimen yang menggunakan lebih dari satu perlakuan atau lebih dari suatu variabel bebas (Putri, 2018). Variabel yang dikaji adalah konsentrasi ekstrak daun catnip (*Nepeta cataria*) dengan konsentrasi 0%, 2%, 5%, 8%, 11% dan waktu kontak 3 jam, 6 jam, 9 jam, 12 jam.

Hasil penelitian ini ditunjukkan pada analisis regresi linier berganda diperoleh nilai $p\text{-value}$ 0,000 ($p\text{-value} < \alpha = 0,05$) berarti ada pengaruh konsentrasi dan waktu kontak ekstrak daun catnip (*Nepeta cataria*) sebagai insektisida nabati terhadap kecoa amerika (*Periplaneta americana*). Didapatkan nilai LC50 yaitu 5,8%. Konsentrasi yang memiliki daya hambat paling efektif adalah konsentrasi 8%.

Kata Kunci : *Periplaneta americana*, Catnip (*Nepeta cataria*), LC50

Daftar baca : 26 (2016-2020)

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**Effectiveness of Catnip (*Nepeta cataria*) Leaf Extract as a Vegetable
Insecticide Against American Cockroaches (*Periplaneta americana*)**

xviii + 68 pages + 15 tables + 5 images, 3 graphic, and 6 attachment

ABSTRACT

Cockroaches are insects that are classified as pests and vectors of several kinds of diseases so that their population needs to be reduced. Cockroach control methods can be done physically, chemically, and biologically. Plants that have the potential as vegetable insecticides are catnip leaves (*Nepeta cataria*). *Nepeta cataria* has downy leaves and stems that give it a green appearance. This plant contains nepetalactone, saponin, and essential oils (Syamsuddin and Andi, 2017). The purpose of this study was to determine the effectiveness of catnip (*Nepeta cataria*) leaf extract as a vegetable insecticide against the American cockroach (*Periplaneta americana*).

This study used a Factorial Completely Randomized Design (CRD), an experiment that used more than one treatment or more than an independent variable (Putri, 2018). The variables studied were the concentration of catnip leaf extract (*Nepeta cataria*) with concentrations of 0%, 2%, 5%, 8%, 11% and contact times of 3 hours, 6 hours, 9 hours, 12 hours.

The results of this study were shown in multiple linear regression analysis obtained p value 0.000 (p-value ≤ 0.05) which means that there is an effect of concentration and contact time of catnip leaf extract (*Nepeta cataria*) as a vegetable insecticide against the American cockroach (*Periplaneta americana*). The LC50 value is 5.8%. The concentration that has the most effective inhibition is the concentration of 8%.

Keywords: *Periplaneta americana*, Catnip (*Nepeta cataria*), LC50

Reading list: 26 (2015-2020)