

POLITEKNIK KESEHATAN TANJUNGPURUS PROGRAM STUDI  
SANITASI LINGKUNGAN PROGRAM SARJANA TERAPAN

Skripsi, Juni 2021

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Pengaruh Kombinasi Ekstrak Daun Belimbing Wuluh (*Averrhoa bilimbi*) dan Ekstrak Daun Sirsak (*Annona muricata* L.) Terhadap Kematian Lalat Rumah (*Musca domestica*)

xix + 78 halaman+10 tabel+5 gambar dan 5 lampiran

**ABSTRAK**

Di Lampung dari tahun 2016-2017 diare masih termasuk 10 besar penyakit urutan ke 7 tahun 2017 jumlah orang yang terkena penyakit diare 65.283 atau 4,26% , kematian balita yang di sebabkan diare pada tahun 2017 berjumlah 4 orang. Di kota Bandarlampung tahun 2018 menurut diagnosis oleh tenaga kesehatan (dokter, perawat atau bidan) orang yang terkena penyakit dengan persentase berjumlah 4,25%.

Tujuan penelitian untuk mengetahui pengaruh kombinasi ekstrak daun belimbing wuluh (*Averrhoa bilimbi*) dan ekstrak daun sirsak (*Annona Muricata* L.) terhadap kematian lalat rumah *Musca domestica*. Penelitian ini menggunakan Rancangan Acak Lengkap Faktorial, Variabel yang dikaji adalah konsentrasi pengaruh kombinasi ekstrak daun belimbing wuluh (*Averrhoa bilimbi*) dan daun sirsak (*Annona muricata* L.) yang terdiri dari ekstrak daun belimbing wuluh dan ekstrak daun sirsak (26,6%:40%), ekstrak daun belimbing wuluh dan ekstrak daun sirsak (33,3%:33,3%), ekstrak daun belimbing wuluh dan ekstrak daun sirsak (40%:26,6%) dan 0% sebagai kontrol. Waktu kontak yang terdiri dari 30 menit, 60 menit, 90 menit dan 120 menit. Sehingga diperoleh 16 variasi (4x4). Sehingga jumlah lalat yang dibutuhkan sebanyak 320 lalat (10 lalat x 32 lalat rumah *Musca domestica*).

Hasil rata-rata jumlah lalat rumah *Musca domestica* yang mati berdasarkan konsentrasi rata-rata tertinggi pada konsentrasi kombinasi ekstrak daun belimbing wuluh dan ekstrak daun sirsak (40%:26,6%) yaitu 7,38 dan rata-rata terendah pada konsentrasi ekstrak daun belimbing wuluh dan ekstrak daun sirsak (26,6%:40%) yaitu 5,50. Sedangkan berdasarkan waktu kontak rata-rata tertinggi pada waktu 2 jam sebesar 6,50 dan rata-rata terendah pada waktu ½ jam sebesar 3,63. Konsentrasi kombinasi ekstrak daun belimbing wuluh dan ekstrak daun sirsak (40%:26,6%) paling efektif dalam membunuh lalat rumah *Musca domestica*. Melakukan penelitian lebih lanjut untuk mengaplikasikan kombinasi ekstrak daun belimbing wuluh (*Averrhoa bilimbi*) dan ekstrak daun sirsak (*Annona muricata* L.) kepada masyarakat.

Kata Kunci : Lalat Rumah (*Musca domestica*), Daun Belimbing Wuluh (*Averrhoa bilimbi*), Daun Sirsak (*Annona muricata* L.)

Daftar Bacaan : 43 (1991-2020)

POLYTECHNIC OF HEALTH TANJUNGPINANG ENVIRONMENTAL  
SANITATION STUDY PROGRAM APPLIED GRADUATE PROGRAM

xix+ 78 pages+10 tables+5 images and 5 attachments

Thesis, June 2021

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The Effect of Combination of Starfruit Leaf Extract (*Averrhoa bilimbi*) and Soursop Leaf Extract (*Annona muricata* L.) on Mortality of House Flies (*Musca domestica*)

ABSTRACT

In Lampung from 2016-2017 diarrhea was still included in the top 10 diseases in the 7th order in 2017 the number of people affected by diarrheal disease was 65,283 or 4.26%, under-five deaths caused by diarrhea in 2017 amounted to 4 people (Profile of Lampung Provincial Health Office, 2017 ). In the city of Bandar Lampung in 2018, according to a diagnosis by health workers (doctors, nurses or midwives) people affected by the disease with a percentage of 4.25%.

The purpose of this study was to determine the effect of the combination of starfruit leaf extract (*Averrhoa bilimbi*) and soursop leaf extract (*Annona muricata* L.) on the mortality of the house fly *Musca domestica*. This study used a factorial completely randomized design, the variable studied was the concentration of the effect of the combination of starfruit leaf extract (*Averrhoa bilimbi*) and soursop leaf (*Annona muricata* L.) which consisted of starfruit leaf extract and soursop leaf extract (26.6%:40 %), starfruit leaf extract and soursop leaf extract (33,3%:33,3%), starfruit leaf extract and soursop leaf extract (40%:26,6%) and 0% as controls. The contact time consisted of 30 minutes, 60 minutes, 90 minutes and 120 minutes. So that obtained 16 variations (4x4). So the number of flies needed was 320 flies (10 flies x 32 *Musca domestica* house flies).

The results of the average number of *Musca domestica* houseflies that died based on the highest average concentration at the concentration of the combination of starfruit leaf extract and soursop leaf extract (40%:26.6%) was 7.38 and the lowest average was the leaf extract concentration. starfruit and soursop leaf extract (26.6%:40%) were 5.50. Meanwhile, based on the highest average contact time at 2 hours of 6.50 and the lowest average at hours of 3.63. The concentration of the combination of starfruit leaf extract and soursop leaf extract (40%:26.6%) was the most effective in killing the housefly *Musca domestica*. Conducting further research to apply a combination of starfruit leaf extract (*Averrhoa bilimbi*) and soursop leaf extract (*Annona muricata* L.) to the community.

Keywords: house fly (*Musca domestica*), starfruit leaf (*Averrhoa bilimbi*), soursop leaf (*Annona muricata* L.)

Reading List : 43 (1991-2020)