

## ABSTRAK

**Nurul Hikma. 2015.** Skripsi "Pengaruh Perasan Daun Sirsak (*Annona muricata* L.) terhadap Pertumbuhan Bakteri *Escherichia coli*". Jurusan Biologi. Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Negeri Gorontalo. Pembimbing I Wirnangsi D. Uno, S.Pd, M.Kes, Pembimbing II Dra. Aryati Abdul, M.Kes.

Penelitian ini bertujuan untuk mengetahui pengaruh perasan daun sirsak terhadap pertumbuhan bakteri *Escherichia coli* dan konsentrasi terbaik dari perasan daun sirsak dalam menghambat pertumbuhan bakteri *Escherichia coli*. Penelitian ini merupakan penelitian eksperimen dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 6 perlakuan (0%, 5%, 10%, 15%, 20% dan 25%) dan 4 ulangan. Data dianalisis menggunakan uji *Kruskal-Wallis* dengan taraf kepercayaan  $\alpha$  0,05, untuk mengetahui perbedaan nyata antar perlakuan dilakukan uji *Duncan*. Berdasarkan hasil analisis statistik menggunakan uji *Kruskal-Wallis* terhadap diameter zona hambat diperoleh nilai signifikan  $0,000 < \alpha$  0,05. Hal ini menunjukkan bahwa terdapat pengaruh perasan daun sirsak terhadap pertumbuhan bakteri *Escherichia coli*. Berdasarkan hasil analisis uji *Duncan* menunjukkan bahwa konsentrasi terbaik terdapat pada konsentrasi 5%.

Kata kunci : Perasan daun sirsak, *Escherichia coli*, Daya hambat

## ABSTRACT

**Nurul Hikma. 2015.** Skripsi. "The Effect of Soursop (*Annona muricata* L.) Leaf Extract toward *Escherichia coli* Bacteria Growth". Departement of Biology. Faculty of Mathematics and Sciences. Satate University of Gorontalo. It was Supervised Wirnangsi D. Uno, S.Pd, M.Kes as Principle Supervisor and Dra. Aryati Abdul, M.kes.

The aim of this research was to know the effect of soursop (*Annona muricata* L.) leaf extract toward *Escherichia coli* bacteria growth and to investigate the most appropriate concentration from soursop leaf extract in blocking the growth of *Escherichia coli* bacteria. This research was an experimental research with complete random design consisting of 6 treatments (0%,5%,10%,15%,20%,25%) and 4 repetitions. The data were analyzed by using *Kruskal-Wallis* test with level of significance at  $\alpha$  0,05. Meanwhile, it used *Duncan* test to know the difference between treatments. Based on the statistical analysis result by using *Kruskal-Wallis* test to blocked zone diameter, it obtained significant value as  $0,000 < \alpha$  0,05. It showed that there was an influence of soursop leaf extract toward *Escherichia coli* bacteria growth. The result of *Duncan* test showed that the most appropriate concentration was at concentration 5%.

Kata Kunci: Soursop Leaf Squeeze, *Escherichia coli*, Blocked Capacity