

ABSTRAK

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PENGARUH VARIASI KONSENTRASI EKSTRAK DAUN SIRSAK (*Annona muricata* L.) TERHADAP WAKTU KEMATIAN CACING *Ascaris suum* SECARA *IN VITRO*.

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xvi + 73 Halaman + 10 Tabel + 12 Lampiran

Kecacingan akibat *Soil-transmitted helminths* merupakan salah satu infeksi paling umum di negara tropis dan sub tropis dengan kemiskinan dan sanitasi yang rendah, termasuk Indonesia. Penggunaan obat sintetik seperti pirantel pamoat sebagai obat cacing terbukti efektif, namun menimbulkan efek samping berupa gangguan pencernaan hingga *erratic migration*, sehingga diperlukan alternatif bahan alam. Daun Sirsak (*Annona muricata* L.) mengandung flavonoid, tanin, dan alkaloid yang berpotensi sebagai antelmintik. Penelitian ini bertujuan untuk mengetahui variasi konsentrasi ekstrak daun sirsak terhadap waktu kematian cacing *Ascaris suum* secara *in vitro* dan dilaksanakan di Laboratorium Parasitologi Jurusan Teknologi Laboratorium Medis Poltekkes Surabaya pada bulan Maret – April 2026. Penelitian eksperimental laboratorium ini menggunakan kontrol positif pirantel pamoat 0,25%, kontrol negatif NaCl 0,9%, dan ekstrak daun sirsak pada konsentrasi 55%, 70%, 85%, dan 100%. Parameter yang diamati pada penelitian ini adalah waktu kematian cacing. Data dianalisis menggunakan aplikasi SPSS dengan uji *Shapiro-Wilk*, *Kruskal-Wallis*, dan *Mann-Whitney* serta uji LT_{50} dan LC_{50} . Hasil penelitian menunjukkan rata-rata waktu kematian pada konsentrasi 55% adalah 490,31 menit, konsentrasi 70% pada 187,87 menit, konsentrasi 85% pada 76 menit, konsentrasi 100% pada 63,87 menit. Kontrol positif menunjukkan waktu kematian 55,87 menit sedangkan kontrol negatif 3.652,3 menit. Analisis statistik menunjukkan kontrol positif tidak berbeda signifikan dengan ekstrak daun sirsak konsentrasi 100% sehingga memberikan efek yang setara dengan kontrol positif pirantel pamoat 0,25% sehingga berpotensi dikembangkan sebagai antelmintik herbal. Nilai LC_{50} diperoleh pada konsentrasi 85% dengan LT_{50} selama 1 jam.

Kata kunci: Daun Sirsak, *Annona muricata* L., Antelmintik, *Ascaris suum*.

Bacaan: 16 buku dan 29 jurnal (2012-2025)

ABSTRACT

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THE EFFECT OF VARIOUS CONCENTRATIONS OF SOURSOP LEAF EXTRACT (Annona muricata L.) ON THE MORTALITY TIME OF Ascaris suum IN VITRO.

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xviii + 73 Pages + 10 Tabela + 12 Appendices

Worm infections caused by soil-transmitted helminths are among the most common infections in tropical and subtropical countries with low levels of poverty and sanitation, including Indonesia. The use of synthetic anthelmintic drugs such as pyrantel pamoate has proven effective but it causes side effects ranging from digestive disorders to erratic migration, therefore natural alternatives are needed. Soursop leaves (Annona muricata L.) contain flavonoids, tannins, and alkaloids that have potential as anthelmintics. This study was conducted to determine the effect of various concentrations of soursop leaf extract on the time to death of Ascaris suum in vitro and was conducted at Parasitology Laboratory, Department of Medical Laboratory Technology, Poltekkes Surabaya, in March to April 2026. This laboratory experimental study used a positive control of 0.25% pyrantel pamoate, a negative control of 0.9% NaCl, and soursop leaf extract at concentrations of 55%, 70%, 85%, and 100%. The parameter observed in this study was the time to death of the worms. Data were analyzed using SPSS software with the Shapiro-Wilk, Kruskal-Wallis, and Mann-Whitney tests, as well as the LT50 and LC50 tests. The results showed that the average time to death at a 55% concentration was 490.31 minutes, at a 70% concentration 187.87 minutes, at an 85% concentration 76 minutes, and at a 100% concentration 63.87 minutes. The positive control showed a time to death of 55.87 minutes, while the negative control showed 3,652.3 minutes. Statistical analysis showed that the positive control was not significantly different from the 100% soursop leaf extract, this providing an effect equivalent to the positive control of 0.25% pyrantel pamoate and has the potential to be developed as a herbal anthelmintic. The LC50 value was obtained at 85% concentration with an LT50 of 1 hour.

Keywords: Soursop leaves, Annona muricata L., Anthelmintic, Ascaris suum.

References: 16 books and 29 journals (2012–2025)