

ABSTRAK

Firashinta Yudi Ardityasari

EFEKTIVITAS EKSTRAK ETANOL KAYU SECANG (*Caesalpinia sappan* L.)
TERHADAP WAKTU KEMATIAN CACING *Ascaris suum* SECARA *IN VITRO*

xvi + 65 halaman + 9 Tabel + 11 Lampiran

Infeksi kecacingan akibat askariasis masih menjadi masalah kesehatan di Indonesia karena prevalensinya tinggi serta berdampak pada status gizi dan pertumbuhan. Penggunaan antelmintik sintetis sebagai terapi utama memiliki keterbatasan berupa efek samping dan potensi resistensi. Situasi tersebut mendorong upaya identifikasi dan pengembangan bahan alam yang berpotensi sebagai sumber potensial antelmintik alternatif. Kayu secang (*Caesalpinia sappan* L.) diketahui mengandung flavonoid, saponin, dan tanin yang berpotensi sebagai antelmintik. Metode penelitian ini adalah eksperimental dengan enam kelompok perlakuan, yaitu kontrol negatif (*aquadest*), kontrol positif (pirantel pamoat 0,25%), serta ekstrak etanol kayu secang konsentrasi 4%, 8%, 12%, dan 15% yang dilaksanakan pada Oktober 2025–Mei 2026 di Laboratorium Parasitologi Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Surabaya. Ekstrak etanol kayu secang dibuat di Fakultas Kedokteran Hewan Universitas Airlangga, sedangkan cacing *Ascaris suum* berasal dari Rumah Pemotongan Hewan Surabaya. Hasil penelitian menunjukkan bahwa seluruh konsentrasi ekstrak etanol kayu secang mampu menyebabkan kematian seluruh cacing pada jam ke-10. Pada kontrol positif, seluruh cacing mati sejak jam ke-2, sedangkan pada kontrol negatif tidak ditemukan kematian cacing. Hasil penelitian tersebut mengindikasikan bahwa ekstrak kayu secang memiliki aktivitas antelmintik terhadap *Ascaris suum* pada seluruh konsentrasi uji. Konsentrasi 12% merupakan konsentrasi efektif terendah yang mampu menyebabkan kematian 50% populasi cacing (LC_{50}) dengan waktu kematian 50% populasi (LT_{50}) selama 6 jam, meskipun efektivitasnya masih lebih rendah dibandingkan pirantel pamoat 0,25%.

Kata kunci: antelmintik, kayu secang, *Ascaris suum*

Bacaan: 4 buku dan 29 jurnal (2019 – 2025)

ABSTRACT

Firashinta Yudi Ardityasari

THE EFFECTIVENESS OF SECANG WOOD (Caesalpinia sappan L.) ETHANOL EXTRACT ON THE TIME TO DEATH OF Ascaris suum WORMS IN VITRO

xvi + 65 pages + 9 tables + 11 appendices

Worm infections caused by ascariasis remain a public health problem in Indonesia due to their high prevalence and their impact on nutritional status and growth. The use of synthetic anthelmintics as the primary treatment has limitations in the form of side effects and the potential for resistance. This situation has prompted efforts to identify and develop natural substances that may serve as potential sources of alternative anthelmintics. Sappan wood (Caesalpinia sappan L.) is known to contain flavonoids, saponins and tannins that have potential as antelmintics. This was an experimental study with six treatment groups: a negative control (distilled water), a positive control (0.25% prantel pamoate), and secang wood ethanol extracts at concentrations of 4%, 8%, 12% and 15%. The study was conducted from October 2025 to May 2026 at the Parasitology Laboratory of the Department of Medical Laboratory Technology, Surabaya Public Health Polytechnic (Poltekkes Kemenkes Surabaya). The ethanol extract of secang wood was prepared at the Faculty of Veterinary Medicine, Airlangga University, whilst the Ascaris suum worms were obtained from the Surabaya Slaughterhouse. The results of the study showed that all concentrations of secang wood ethanol extract were capable of causing the death of all worms by the 10th hour. In the positive control, all worms died by the 2nd hour, whilst in the negative control no worm deaths were observed. These results indicate that secang wood extract exhibits anthelmintic activity against Ascaris suum at all test concentrations. The 12% concentration was the lowest effective concentration capable of causing the death of 50% of the worm population (LC50) with a time to 50% mortality (LT50) of 6 hours, although its efficacy was still lower than that of 0.25% pyrantel pamoate.

Keywords: anthelmintics, secang wood, Ascaris suum

References: 4 books and 29 journal articles (2019–2025)