

EVALUASI EKSTRAK KEMUKUS SEBAGAI ANTIPARASIT SECARA IN VITRO

Delta Wiga Pramana
22/493534/PT/09270

INTISARI

Penelitian ini bertujuan untuk mengetahui efektivitas penggunaan ekstrak kemukus sebagai agen antiparasit terhadap cacing *Haemonchus contortus* secara *in vitro* dengan level yang berbeda. Penelitian ini menggunakan lima perlakuan yaitu kontrol negatif dengan NaCl 10,9%, NaCl 0,9% + 3 mg/ml ekstrak kemukus, NaCl 0,9% + 6 mg/ml ekstrak kemukus, NaCl 0,9% + 9 mg/ml ekstrak kemukus, dan kontrol positif dengan NaCl 0,9% + 3 ml albendazole. Masing-masing dari perlakuan dilakukan 3 kali ulangan. Variabel yang diamati yaitu kematian cacing (menit ke 0,10, 20, 30, 60, 120, 180, 240) dan daya hambat tetas telur (selama 24 jam). Data yang diperoleh di analisis variansi sesuai rancangan acak lengkap pola searah (*one-way Anova*), beda antara rerata diuji menggunakan uji *Duncan Multiple Range Test*. Hasil analisis menunjukkan bahwa penggunaan ekstrak kemukus 3, 6, 9 mg/ml berpengaruh nyata ($P < 0,05$) meningkatkan mortalitas cacing dewasa dan persentase hambatan penetasan telur cacing *Haemonchus contortus* lebih tinggi dibandingkan dengan kontrol negatif serta sama efektifnya dengan albendazole. Penambahan ekstrak kemukus dengan dosis 9 mg/ml berpengaruh nyata dalam meningkatkan mortalitas cacing dewasa hingga $34,72 \pm 33,82\%$ dalam menit ke-,10, 20, 30, 60, 120, 180, 240 dan persentase hambatan penetasan telur cacing *Haemonchus contortus* sebesar $86,15 \pm 4,26\%$ sehingga berpotensi sebagai anthelmintik alami alternatif menggantikan albendazole

Kata kunci: Anthelmintik *in vitro*, daya hambat telur cacing, *haemonchus contortus*, kemukus.

EVALUATION OF CUBEB (*Piper cubeba*) EXTRACT AS AN ANTIPARASITIC IN VITRO

Delta Wiga Pramana
22/493534/PT/09270

ABSTRACT

This study aimed to evaluate the effectiveness of kemukus extract as an antiparasitic agent against *Haemonchus contortus* worms in vitro at different concentration levels. The experiment consisted of five treatments: a negative control using 0.9% NaCl, 0.9% NaCl supplemented with 3 mg/ml kemukus extract, 0.9% NaCl supplemented with 6 mg/ml kemukus extract, 0.9% NaCl supplemented with 9 mg/ml kemukus extract, and a positive control using 0.9% NaCl combined with 3 ml albendazole. Each treatment was replicated three times. The observed variables included worm mortality at 0, 10, 20, 30, 60, 120, 180, and 240 minutes, as well as egg hatching inhibition over a 24-hour period. The collected data were analyzed using analysis of variance (ANOVA) based on a completely randomized design with a one-way pattern. Differences among treatment means were further tested using Duncan's Multiple Range Test. The results showed that the application of kemukus extract at concentrations of 3, 6, and 9 mg/ml had a significant effect ($P < 0,05$) on increasing adult worm mortality and the percentage of egg hatching inhibition of *Haemonchus contortus*, showing greater effectiveness than the negative control and comparable efficacy to albendazole. The adding of kemukus extract at a dose of 9 mg/ml significantly increased adult worm mortality up to $34,72 \pm 33,82\%$ at observation times of 10, 20, 30, 60, 120, 180, and 240 minutes, and achieved an egg hatching inhibition percentage of $86,15 \pm 4,26\%$. Therefore, kemukus extract has the potential to be used as a natural alternative anthelmintic to replace albendazole.

Keywords: In vitro anthelmintic, egg hatching inhibition, *Haemonchus contortus*, cubeb extract