

ABSTRAK

PENGARUH PEMBERIAN VARIASI DOSIS SEDUHAN BUBUK KOPI ROBUSTA (*Coffea canephora*) MANGGARAI TERHADAP EFEK LAKSATIF PADA TIKUS PUTIH BETINA

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Kopi Robusta (*Coffea canephora*) Manggarai mengandung kafein tinggi yaitu 0.4% b/b yang dapat menstimulasi pergerakan usus untuk mengobati konstipasi. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian variasi dosis seduhan bubuk kopi Robusta Manggarai terhadap efek laksatif pada tikus putih betina dan dosis yang paling optimum untuk efek laksatif.

Penelitian ini bersifat eksperimental murni dengan Rancangan Acak Lengkap (RAL). Tikus berjumlah 20 ekor, umur 2-3 bulan, dan bobot badan 100-200 gram yang dibagi ke dalam 5 kelompok perlakuan. Kelompok 1, 2, dan 3 diberi seduhan bubuk kopi dengan dosis peroral 0.15 g, 0.3 g, dan 0.6 g/200gBB; kontrol positif Dulcolax 0.252 mg/200gBB; dan kontrol negatif air hangat 5 ml/200gBB. Semua tikus diinduksi ekstrak daun gambir dua hari dan dipuasakan air minum 18 jam sebelum perlakuan untuk memberikan efek sembelit. Efek laksatif bahan uji diketahui dengan mengamati frekuensi defekasi selama 6 jam dan mengkategorikan konsistensi feses.

Variasi dosis seduhan bubuk kopi Robusta Manggarai memiliki efek laksatif pada tikus putih betina yang ditunjukkan oleh nilai rerata frekuensi defekasi lebih tinggi daripada kontrol negatif dan konsistensi feses termasuk kategori normal. Seduhan bubuk kopi Robusta Manggarai pada dosis 0.3 g/200gBB memberikan efek laksatif paling optimum pada tikus putih. Efek laksatif kopi terutama berasal dari metabolit kafein yaitu senyawa theophylline yang merelaksasi otot polos pada saluran pencernaan.

Kata kunci: frekuensi defekasi, kafein, konsistensi feses, kopi Robusta Manggarai, laksatif

ABSTRACT

**THE EFFECT OF GIVING VARIANCE DOSES OF STEEPED
MANGGARAIAN ROBUSTA COFFEE (*Coffea canephora*) GROUNDS
TOWARD LAXATIVE EFFECT ON FEMALE RAT**

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*Robusta coffee (*Coffea canephora*) from Manggarai contains 0.4 wt % of caffeine which can stimulate bowel movement to cure constipation. This research's aims were to know the effect of giving variance doses of steeped Manggaraian Robusta coffee grounds toward laxative effect on female laboratory rats and the optimum dose for laxative effect.*

This research was a pure experimental with Completely Randomized Design; 20 rats, age 2-3 months, and 100-200 grams body weight (BW) were used for experiment and divided into 5 treatment groups. Group 1, 2, and 3 were given steeped Manggaraian Robusta coffee grounds with oral doses of 0.15 g, 0.3 g, and 0.6 g/200gBW; positive control was treated with Dulcolax 0.252 mg/200gBW; and negative control was treated with warm water 5 ml/200gBW. Rats were induced by gambier's leaf extract for 2 days and fasted for drink of water 18 hours before treatment for giving constipation effect. Laxative effect of the experiment substance was known by observing the defecation frequency during 6 hours and feces consistency grouping.

Variance of doses of steeped Manggaraian Robusta coffee grounds have laxative effect on female laboratory rats that was showed by the average value of defecation frequency higher than negative control and the feces consistency grouped into normal category. Dose 0.3 g/200gBW of steeped Manggaraian Robusta coffee grounds was the optimum dose for laxative effect on female laboratory rats. Laxative effect of coffee was primary originated from a caffeine's metabolism namely theophylline compound which was relaxing smooth muscle at laboratory rat's digestive system.

Keywords: *caffeine, defecation frequency, feces consistency, laxative, Manggaraian Robusta coffee*