

**Uji Toksisitas Reproduksi Filtrat Buah Luwungan (*Ficus hispida* L.f.)  
pada Tikus (*Rattus norvegicus* Berkenhout, 1769) Jantan Galur Wistar**

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**INTISARI**

Tumbuhan anggota Genus *Ficus* telah banyak dimanfaatkan sebagai obat tradisional dan bahan pangan. Studi pustaka menunjukkan bahwa senyawa dari beberapa anggota Genus *Ficus* berdampak positif terhadap fungsi reproduksi jantan, sementara sebagian lagi justru berdampak negatif. Penelitian ini bertujuan untuk mempelajari ada tidaknya efek toksik filtrat buah luwungan (*Ficus hispida*) terhadap spermatogenesis, serta kuantitas, dan kualitas spermatozoa tikus (*Rattus norvegicus*) jantan Galur Wistar. Sebanyak 9 ekor tikus dibagi menjadi 3 kelompok, yaitu: kontrol/plasebo, filtrat buah muda, dan filtrat buah matang. Bahan uji diberikan secara oral sebanyak 2 mL/ekor/hari selama 77 hari. Data dianalisis secara statistik berdasarkan uji *one-way* ANOVA ( $\alpha=0,05$ ). Hasil menunjukkan bahwa jumlah sel-sel spermatogenik, konsentrasi spermatozoa, persentase morfologis normal spermatozoa, indeks testis, indeks kelenjar prostat, dan indeks epididimis mengalami kenaikan pada kelompok yang diberi filtrat buah muda. Sementara itu pada kelompok yang diberi filtrat buah matang terdapat peningkatan persentase viabilitas spermatozoa, indeks vesikula seminalis, dan berat testis. Kelompok kontrol memiliki lemak viseral dan berat badan tertinggi. Dapat disimpulkan bahwa buah luwungan tidak toksik terhadap fungsi reproduktif tikus Wistar jantan. Pemberian filtrat buah muda justru berdampak positif dengan meningkatkan nilai sebagian besar variabel yang diukur.

Kata kunci: *Ficus hispida*, toksisitas, reproduksi jantan, tikus Wistar, spermatogenesis, spermatozoa

## Reproductive Toxicity Test of Luwangan (*Ficus hispida* L.f.) Fruit Filtrate on Male Wistar Rats (*Rattus norvegicus* Berkenhout, 1769)

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### ABSTRACT

In many countries, Figs (Genus *Ficus*) are popular as traditional medicines and foods. Phytochemical studies revealed that bioactive compounds in some fig fruits are potential to improve male reproductive functions, whereas some others may disrupt it. This research aimed to study the toxic effects of hairy-fig (*Ficus hispida*) fruit filtrate on male reproductive functions in Wistar rats (*Rattus norvegicus*). Animals were divided into 3 groups: Two groups received unripe or ripe fruit filtrate, one group for control. Fruit filtrates were given orally 2 mL/individual/day for 77 days. Control group received an equal volume of distilled water in the same way. Data were analyzed statistically using one-way ANOVA ( $\alpha=0.05$ ). Results showed that number of spermatogenic cells, spermatozoa concentration, percentage of spermatozoa with normal morphology, testis index, prostate gland index, and epididymal index increased in group treated with unripe fruit filtrate. Meanwhile, group treated with ripe fruit filtrate demonstrated an increase in the percentage of viability of spermatozoa, seminal vesicle index, and testis weight. Control group had the highest body weight with the highest abdominal fat. It can be concluded that hairy-fig fruit filtrate is safe for male reproductive functions in Wistar rats. Even, unripe fruit filtrate had a positive effect by increasing the value of almost all measured variables.

Keywords: *Ficus hispida*, toxicity, male reproduction, Wistar rats, spermatogenesis, spermatozoa