

## INTISARI

### PENGARUH TEMU IRENG (*Curcuma aeruginosa* Roxb.) TERHADAP AKTIVITAS ENZIM ASPARTATE AMINOTRANSFERASE (AST) DAN ALANINE AMINOTRANSFERASE (ALT) PADA ITIK TURI (*Anas platyrhynchos*)

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Penelitian ini bertujuan untuk mengetahui pengaruh temu ireng (*Curcuma aeruginosa* Roxb.) terhadap aktivitas enzim *aspartate aminotransferase* (AST) dan *alanine aminotransferase* (ALT) pada itik Turi (*Anas platyrhynchos*). Dalam penelitian ini digunakan 8 ekor itik Turi jantan berumur 2 bulan dan secara klinis sehat. Hewan dibagi menjadi 2 kelompok (P0 dan P1), masing-masing 4 ekor. Hewan kelompok P0 diberi pakan basal tanpa temu ireng sebagai kontrol dan kelompok P1 diberi pakan yang sama dengan kelompok P0 dan ditambah serbuk temu ireng sebanyak 2% selama 35 hari. Sampel darah diambil dari vena brachialis pada akhir penelitian untuk pemeriksaan aktivitas AST dan ALT di dalam serum. Pemeriksaan aktivitas AST dan ALT menggunakan alat *Automatic Blood Analyzer* model Roche/Hitachi Cobass C 501 (Roche Diagnostics GmbH, Mannheim, Germany). Pengukuran konsumsi pakan dilakukan setiap hari, sedang pengukuran berat badan dilakukan setiap minggu. Pada akhir penelitian itik dieutanasia dan dilakukan pemeriksaan fisik dan penimbangan berat organ hati. Perbedaan aktivitas enzim (AST, ALT) dan berat organ hati antar kelompok itik dianalisis dengan menggunakan *independent t-Test*. Perbedaan dinyatakan signifikan jika  $p < 0,05$ .

Rerata berat badan dan konsumsi pakan itik kelompok P0 dan P1 tidak berbeda nyata. Rerata asupan serbuk temu ireng itik kelompok P1 sebesar  $3,86 \pm 0,19$  g/hari. Rerata aktivitas AST di dalam serum itik kelompok P0 dan P1 masing-masing sebesar  $23,50 \pm 5,80$  U/L dan  $23,75 \pm 7,50$  U/L. Sementara itu aktivitas ALT di dalam serum pada kelompok P0 dan P1 berada pada level  $22,75 \pm 2,06$  U/L dan  $26,50 \pm 5,32$  U/L. Aktivitas AST dan ALT di dalam serum dan berat organ hati itik kelompok P1 dan P0 tidak berbeda nyata ( $p > 0,05$ ). Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian pakan dengan kandungan serbuk temu ireng sebanyak 2% selama 35 hari tidak berpengaruh terhadap aktivitas AST dan ALT di dalam serum.

**Kata kunci:** *Itik, temu ireng, aspartate aminotransferase, alanine aminotransferase*

## ABSTRACT

### THE EFFECT OF TEMU IRENG (*Curcuma aeruginosa* Roxb.) TO ASPARTATE AMINOTRANSFERASE (AST) AND ALANINE AMINOTRANSFERASE (ALT) ENZYME ACTIVITY OF TURI DUCK (*Anas platyrhynchos*)

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This research was aimed to investigate the effect of temu ireng (*Curcuma aeruginosa* Roxb.) powder on the serum activity of aspartate aminotransferase (AST) and alanine aminotransferase (ALT) enzyme activity in Turi ducks (*Anas platyrhynchos*). Eight male Turi ducks aged 2 months were used in this study. The animals were divided into 2 groups (P0 and P1), 4 animals in each. The animals in P0 group were given basal diet (without adding temu ireng powder) as control, and the animals in P1 group were given the basal diet supplemented with temu ireng powder at the level of 2% for 35 days. Feed consumption was measured daily, whereas the body weight was measured weekly. At the day 35 blood samples were collected from vena brachialis for serum AST and ALT activity analyses. The serum AST and ALT activities were assayed using Automatic Blood Analyzer - Roche/Hitachi Cobass C 501 (Roche Diagnostic GmbH, Mannheim, Germany). At the end, each animal was killed and the liver was examined and weighed. The mean difference of enzymatic parameters and liver weight between the animal groups were analyzed using independent t-Test.

The body weight and feed consumption of Turi ducks in group P0 and P1 were not significantly different. The animals in group P1 consumed  $3.86 \pm 0.19$  g temu ireng powder/day. The mean serum level of AST activity in group P0 and P1 was  $23.50 \pm 5.80$  U/L and  $23.75 \pm 7.50$  U/L, respectively. The mean serum level of ALT activity in group P0 and P1 was  $22.75 \pm 2.06$  U/L and  $26.50 \pm 5.32$  U/L, respectively. There were no significant difference in serum AST and ALT activity as well as liver weight between the group P0 and P1 ( $p > 0.05$ ). Based on the results of the research it could be concluded that the supplementation of temu ireng powder at the level of 2% of feed consumption for 35 days does not have significant effect on serum AST and ALT activity in Turi ducks.

**Keywords:** *Duck, temu ireng, aspartate aminotransferase, alanine aminotransferase*