

**THE EFFECT OF ‘KALUNG’ CRICKET’S (*Gryllus bimaculatus*)  
FLOUR ADDITION IN MALE MICE (*Mus musculus*) FEED TOWARD THE  
TESTES’ WEIGHT, SEMINIFEROUS TUBULES’ DIAMETER, AND  
LEYDIG CELLS’ AMOUNT**

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**ABSTRACT**

This research’s purpose is to see the effect of ‘Kalung’ cricket’s (*Gryllus bimaculatus*) flour addition in male mice (*Mus musculus*) feed toward the testes’ weight, seminiferous tubules’ diameter, and leydig cells’ amount. The effect of cricket flour was tested on 20 mice which are randomly mixed at 4 treatments. K (control) was given standard feed, P1 was given standard feed with addition of 5% cricket flour, P2 with addition of 10% cricket flour, and P3 with addition of 20% cricket flour. Treatment was done for 45 days, then the mice were sacrificed. Testes sample was taken by surgery, testes’ weight were weighed using 0.1 analytical scale, then proceed with the preparation of histologic preparations of the seminiferous tubules to see the seminiferous tubules’ diameter and leydig cells’ amount. Measurement of seminiferous tubules’ diameter using Trinocular microscope with 100x magnification with NIS-Element High Contain Analysis software. Calculation of leydig cells’ amount using Optilab with Image Raster software with 400x magnification. The results were analyzed using Analysis of Variant (ANOVA) and continued with Duncan range test of obtain average value and standard deviation. The weight of testes are  $0.09 \pm 0.016$  (K),  $0.13 \pm 0.015$  (P1),  $0.10 \pm 0.031$  (P2),  $0.05 \pm 0.023$  (P3). Seminiferous tubules’ diameter are  $174.32 \pm 8.032$  (K),  $204.27 \pm 18.004$  (P1),  $182.68 \pm 10.233$  (P2),  $139.03 \pm 13.042$  (P3). Leydig cells’ amount are  $11.78 \pm 2.072$  (K),  $16.40 \pm 2.821$  (P1),  $11.82 \pm 1.428$  (P2),  $8.26 \pm 1.342$  (P3) which shows significant differences ( $P < 0.05$ ). Conclusion is, the addition of 5% cricket’s flour dose is the optimal dose to increase the testes’ weight, seminiferous tubules’ diameter, and leydig cells’ amount.

**Key word** : Kalung cricket’s, testes’ weight, seminiferous tubules’ diameter, leydig cells’ amount, male mice.