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The Effect of Water on Growth, Food Consumption, Feces Quantity, Digestive Activity and Glycogen Level of *Gryllus bimaculatus* (Orthoptera: Gryllidae)

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Abstract: In this study, the effect of water on growth (wet weight gain), food consumption, feces quantity, digestive activity and glycogen level of *Gryllus bimaculatus* female adults was investigated by doing the experiments of feeding and starvation. Wheat bran was given for feeding. All parameters were found to be significantly higher in insects feeding with water than those feeding without water. A significant difference did not occur in mean wet weight and glycogen level in insects either feeding without water or starved for one week. At the end of the experimental period, a wet weight gain (43%) was observed only in the insects feeding with water, and the highest loss (40%) in wet weight in those starved without water until death. Similarly, mean glycogen content was highest (1.108 mg) in the former, and the lowest (0.058 mg) in the later. In terms of parameters studied, it was concluded that water has a significant effect on *G. bimaculatus* females.

 [Keywords](#)
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Key Words: Feeding with water, Feeding without water, Starvation, Growth, Digestion, Glycogen Orthoptera

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