

## **Study on the Effect of *Hermetia illucens* Larval Feed (Black Soldier Fly) on the Biology of Dengue Vector *Aedes aegypti***

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### **Abstract**

Black Soldier Fly (BSF) is known for its potential use as a decomposer and as an insect feed all over the world. However little is known on the antimicrobial property of the larval forms. A series of experiments were conducted using the BSF as larval feed to determine its effects on the midgut microbiota and biology of *Aedes aegypti*. The midgut microbiota was reduced in the life stages of mosquitoes reared in larval feed than fish feed. Hatchability was higher in eggs in fish feed than BSF larval feed (fish feed  $8.17 \pm 0.54$ , BSF larval feed  $0.33 \pm 0.33$ ;  $p < 0.05$ ). Pupation was delayed for BSF larval than fish feed (fish feed  $9.50 \pm 1.23$  and BSF larval feed  $8.33 \pm 0.33$ ;  $p > 0.05$ ).

*Keywords - Aedes aegypti, Black Soldier Fly, Larval feed, Antimicrobial activity, Hatchability*