

## Controlling the Growth and Development of Mosquito (*Aedes aegypti*) Using Testosterone

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**Abstract :** This study aimed to investigate the effects of testosterone in the development and growth of *Aedes aegypti* as a main vector of dengue virus. There were three concentrations of testosterone: (0 $\mu$ M), (10 $\mu$ M), and (15 $\mu$ M) arranged randomly in two blocks. Each concentration houses 10 mosquitoes and monitored their development. The results showed that there were no significant differences on the effects of testosterone in emergence of larvae, mortality of eggs and larvae. However, it was shown that adults emerged from 15 $\mu$ M had a lower sex ratio than 10 $\mu$ M leading to the conclusion that there could be an optimal concentration of testosterone close to 10 $\mu$ M that could led to a high possibility of sex reversal of adult mosquitoes from female to male.

**Keywords :** mosquito, sex reversal, testosterone, ecdysterone

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