

## **Efficacy of Methyl Eugenol and Food-Based Lures in Trapping Oriental Fruit Fly *Bactrocera dorsalis* (Diptera: Tephritidae) on Mango Homestead Trees**

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**Abstract :** Trapping efficiency of methyl eugenol and three locally made food-based lures were evaluated in three locations for trapping of *B. dorsalis* on mango homestead trees in Ibadan South west Nigeria. The treatments were methyl eugenol, brewery waste, pineapple juice, orange juice, and control (water). The experiment was laid in a Complete Randomized Block Design (CRBD) and replicated three times in each location. Data collected were subjected to analysis of variance and significant means were separated by Turkey's test. The results showed that *B. dorsalis* was recorded in all locations of study. Methyl eugenol significantly ( $P < 0.05$ ) trapped higher population of *B. dorsalis* in all the study area. The population density of *B. dorsalis* was highest during the ripening period of mango in all locations. The percentage trapped flies after 7 weeks were 77.85%-82.38% (methyl eugenol), 7.29%-8.64% (pineapple juice), 5.62-7.62% (brewery waste), 4.41%-5.95% (orange juice), and 0.24-0.47% (control). There were no significance differences ( $p > 0.05$ ) on the population of *B. dorsalis* trapped in all locations. Similarly, there were no significant differences ( $p > 0.05$ ) on the population of flies trapped among the food attractants. However, the three food attractants significantly ( $p < 0.05$ ) trapped higher flies than control. Methyl eugenol trapped only male flies while brewery waste and other food based attractants trapped both male and female flies. The food baits tested were promising attractants for trapping *B. dorsalis* on mango homestead trees, hence increased dosage could be considered for monitoring and mass trapping as management strategies against fruit fly infestation.

**Keywords :** attractants, trapping, mango, *Bactrocera dorsalis*

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