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Preference of fruit flies toward three host plants (mango, shea, guava)

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ABSTRACT

Objective: The study documented the preferences of two fly species toward some host plants. *Methodology and Results:* Fruits (mangoes, shea and, guavas) harvested in orchards were observed in the laboratory for about ten days. The healthy fruit served as nesting sites for fruit fly species under semi-natural conditions. Ovipositors were removed from the cages of *C. cosyra* and *B. dorsalis* 24 h after exposure and then incubated in cups until emergence. The results of rearing fruit flies in these three substrates in the laboratory revealed two fly species: *B. dorsalis and, C. cosyra*. They also showed a preference for *B. dorsalis* species over shea with an average of 78.22 flies, followed by guava with 24.8 flies. Mango is preferred by *C. cosyra* species as the host fruit with 19.72 flies. *B. dorsalis* species laid eggs in all three fruits. *Conclusion and Application of results:* These results can serve as a prerequisite for the identification and mass breading of beneficial insects effective against these fruit flies. Their release in orchards is a new control method that will considerably reduce fruit fly losses.

Keywords: Fruit flies, host fruits, integrated fight, orchards, Mali