FECUNDITY AND MATING PROPENSITY OF *TOXOTRYPANA CURVICAUDA* (DIPTERA: TEPHRITIDAE) ON AN ALTERNATIVE HOST, *JACARATIA MEXICANA* (CARICACEAE).

ABSTRACT

Adult reproductive biology, including fecundity and mating propensity, may be affected by larval host for insects such as the papaya fruit fly, *Toxotrypana curvicauda* that do not require protein to produce eggs. Although the reproductive biology of papaya fruit flies that were reared on papaya fruit *Carica papaya* L. is known, little is known of flies that develop on alternate host fruit such as *Jacaratia mexicana* (Caricaceae). Therefore, uninfested *J. mexicana* fruit were collected from the field and infested by exposing them to oviposition in the laboratory by papaya fruit flies that were obtained from field-infested papaya. Puparia of females were longer then puparia of males, but there was no difference in either puparial width or weight. Females 6 d old produced 26 eggs/ovary. There was a positive linear relationship between puparial weight and number of chorionated eggs in mature females (6–8 d old), but puparial weight was not correlated with adult longevity. Females produced 2.99 eggs per mg of weight of puparium. Adult females were larger and heavier than adult males. Papaya fruit flies reared on *J. mexicana* are smaller, lighter, and have fewer eggs than reported for flies reared on C. *papaya*.

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