

Effects of four fruit species on development of Queensland fruit fly larvae (*Bactrocera tryoni* Diptera: Tephritidae)

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The Queensland fruit fly *Bactrocera tryoni* (Froggatt, 1897) is an extremely serious pest of horticultural crops with a very broad host range. The development of Queensland fruit fly larvae on four fruit species--Dwarf Ducasse bananas, Jazz apples, SunGold kiwifruit and Hayward Green kiwifruit--was tracked over two weeks. Fruit were artificially infested with fruit fly eggs, and the fruit held at a constant 26 °C until fruit were assessed by dissection for the numbers of each larval life stage. Larval development was rapid and consistent in bananas, resulting in high numbers of pupae. Development was similarly rapid in both kiwifruit species, but was not as consistent and survival was much reduced. Additionally, SunGold kiwifruit showed a much reduced egg hatch rate, compared with the other fruits. Larval development was slowest in apples, with larvae still present in the fruit over three weeks after infestation. Survival in apples was highly variable, with some fruit showing high survivorship, while others suffered substantial mortality. Differences between fruit can be attributed to particular properties of the fruit species, including chemical and physical properties.

