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Susceptibility of four mango varieties to the Africa Invader Fly, *Bactrocera invadens* Drew, Tsuruta & White (Diptera: Tephritidae) in Ghana

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ABSTRACT

Objectives

The susceptibility of four mango varieties (Kent, Keith, Palmer and Haden) that are economically important in Ghana to attack by *Bactrocera invadens* was assessed through a series of laboratory-based choice and no-choice experiments. Some fruit quality parameters and the developmental periods of immature stages of flies in the varieties were also determined.

Methodology and results

Susceptibility was determined by counting and comparing the number of puparia recovered from the different varieties after exposure to the flies in cages. Cv Kent was found to be the most susceptible, followed by cv. Palmer, Haden and Keith. Flies took significantly longer periods to complete development on the least susceptible variety (Keith) (25.53 ± 2.3 days), than on the most susceptible variety (Kent) (19 ± 2.3 days). Significant differences (P □ 0.05) were also observed in the peel thickness and firmness, percent titratable acidity (%TA) and total soluble solids (TSS) of the four varieties.

Application of findings

The differences observed in varietal susceptibility suggest that potentials exist for further genetic improvement to develop mango varieties that are more tolerant to *B. invadens*. Varietal differences could also be incorporated into an integrated management strategy against the pest.

Key words

Mango, *Bactrocera invadens*, fruit flies, Ghana.