

Effect of trap colour, cultural and sanitation measures on density of *Bactrocera zonata* in Sudan

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Flies (Diptera: Tephritidae) are the most destructive insect pests of fruits and vegetables in the world. Fruit and vegetable production is one of the most important agricultural subsectors in Africa, providing income, creating employment opportunities, and enhancing food and nutritional security. Sudan has a vast and diverse fruit and vegetable production zones which enable production of horticultural crops all around the year. Fruits and vegetables are important components in human nutrition as they are important source for minerals and vitamins. In Sudan the production of fruits and vegetables is affected by fruit flies (*Bactrocera* spp.) that may play a major role in reducing production and limiting the exportation capabilities.

These pests cause significant losses to crops which include direct damage to production and rising cost of protection.



Infestation of *B. zonata* in push



Infestation *B. zonata* in mango

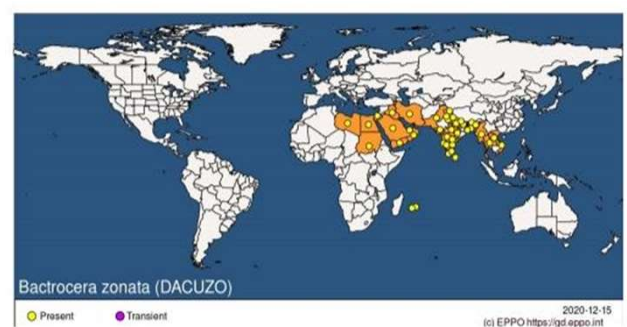
The objective of this study was to investigate the effect of trap colour, cultural and sanitation Measures on density of peach fruit fly, *Bactrocera zonata* (Saunders) (Diptera: Tephritidae).

Several field surveys were conducted in the Gezira State, Sudan during season 2016/2017. Three locations were selected in the study area and three sites were selected at each location. An orchard was randomly selected at each site and five directions at each orchard were determined. Methyl Eugenol trap was used to estimate the effect of colour, cultural and sanitation measures on density of the fruit flies.

Data were subjected to descriptive analysis and analysis of variance procedure. The results showed that during the flowering period of mango, peach fruit fly (*Bactrocera zonata*) was highly attracted to other colours rather than the yellow colour, while, during the fruiting the insect was highly attracted to the yellow colour compared to the other colours. The density of the insects was significantly low in the well managed orchards (8.7 insects per trap per week) compared to the poor managed orchards (36.9 insects per trap per week). So the trap colour, composition of the horticultural crops, well cultural practices and good sanitation measures should be addressed when dealing with the control of peach fruit fly.



Bactrocera zonata



Distribution of *B. zonata*