Non-host status of litchi, *Litchi chinensis* Sonn. (Sapindaceae) to the oriental fruit fly, *Bactrocera dorsalis* (Hendel) (Diptera: Tephritidae) in Mozambique

PO-19

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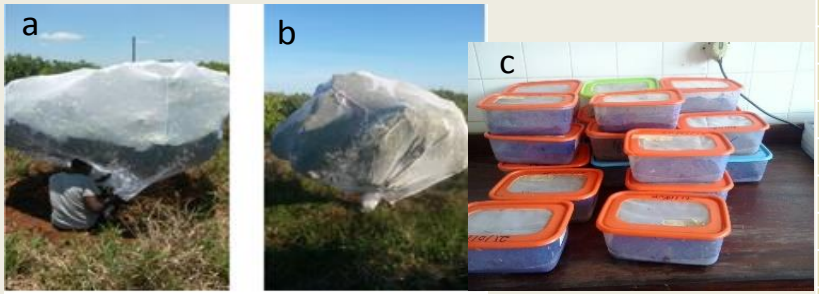
Introduction

Phytosanitary measures present significant barrier to the export of fresh fruits of *Litchi chinensis* cultivar "Mauritius" from Mozambique due to the occurrence of *Bactrocera dorsalis*. This study assessed the infestation of *Bactrocera dorsalis* on fresh litchi fruits at harvest maturity stage to determine its host status.

Materials and Methods

Litchi fruits were collected from Manica and Maputo provinces in November 2015 and 2016 and then reared in laboratory for adult fruit flies emergence. Field cage experiments were carried out at the same sites covering the trees and/or bunchs with mosquito netting and then exposed to 25, 50 and 100 gravid females for oviposition.



a) and b) artificial infestation of litchi fruits by *Bactrocera dorsalis* on cage experiments; b) litchi fruits rearing in laboratory for fruit flies emergence

Results and Discussion

There was no fruit fly infestation recorded on litchi fruits under natural or artificial infestation. The non-host status of litchi for *B. dorsalis* may be due to skin (the pericarp) hardness which prevents oviposition of fruit flies. Therefore, litchi fruits at harvest stage are extremely unlikely to be natural or conditional host for *B. dorsalis*.

Infestation levels/flies density	Nr of infested fruits	Mean fruit weight (kg)	No. of pupae recovered	Pupae per kg
Natural infestation				
Manica province	0	0.52±0.02	0.0±0.0	0.0±0.0a
Maputo province	0	0.53±0.03	0.0±0.0	0.0±0.0a
Artificial infestation				
Manica province				
25 flies	0	0.5±0.0	0.0±0.0	0.0±0.0
30 flies	0	0.51±0.01	0.0±0.0	0.0±0.0
50 flies	0	0.51±0.01	0.0±0.0	0.0±0.0
Maputo province				
25 flies	0	0.5±0.0	0.0±0.0	0.0±0.0
30 flies	0	0.51±0.01	0.0±0.0	0.0±0.0
50 flies	0	0.51±0.01	0.0±0.0	0.0±0.0

B. dorsalis emerged from litchi fruits previously infested by litchi moth, *Cryptophlebia peltastica* or mechanically damaged. The results suggest that B. dorsalis infests litchi fruits as a secondary pest.