



Food and Agriculture  
Organization of the  
United Nations



International  
Plant Protection  
Convention

# F3: Fruit Fly Free

Establishment and maintenance of fruit production areas free and under low prevalence of fruit fly pests in southern Africa

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## Partners and funding

Partners:

South Africa

- Agricultural Research Council
- Department of Agriculture, Land Reform and Rural Development
- Citrus Research International
- Stellenbosch University

Mozambique

- Eduardo Mondlane University
- Ministry of Agriculture and Food Security

Funding: Standards and Trade Development Facility



STANDARDS *and* TRADE  
DEVELOPMENT FACILITY

## Scope

This project aims specifically at developing a regionally harmonized framework for development, implementation and recognition of Pest Free Areas (PFAs) and Areas of Low Pest Prevalence (ALPPs) for regulated fruit fly pests of commercial fruit in southern Africa (South Africa and Mozambique) following the directives of the relevant International Standards for Phytosanitary Measures (ISPMs), as approved by the International Plant Protection Convention (IPPC)

The targeted fruit fly species are:

Oriental fruit fly, *Bactrocera dorsalis* (Hendel)

Melon fly, *Zeugodacus cucurbitae* (Coquillett)

Mediterranean fruit fly, *Ceratitis capitata* (Wiedemann)



Photo: P. Stephan CRI



Photo: RS Copeland

## Relevance to the IPPC

The establishment and maintenance of PFAs and ALPPs are done according to:

- ISPM 26, Establishment of pest free areas for fruit flies (Tephritidae)
- ISPM 35, Systems approach for pest risk management of fruit flies (Tephritidae), Annexure 1, Establishment of areas of low pest prevalence for fruit flies
- ISPM 29, Recognition of pest free areas and areas of low pest prevalence
- ISPM 37, Determination of host status of fruit to fruit flies (Tephritidae)



Photo: P. Stephan CRI



## Relevance to the IPPC

Other general standards would also be followed such as:

- ISPM 4, Requirements for the establishment of Pest Free Areas
- ISPM 6, Surveillance
- ISPM 8, Pest status
- ISPM 9, Eradication

As such, the project addresses good practices in SPS, by safeguarding and improving at a regional scale, the production of a number of horticultural commodities.



## Main outputs

- Established Pest Free Areas (PFAs) in South Africa and Mozambique
- Scientifically based evidence for specified low prevalence levels.
- Established Areas of Low Pest Prevalence (ALPPs) in South Africa and Mozambique
- Operational database platform for determination of PFAs and ALPPs in different regions in South Africa and Mozambique.
- Identification protocol and service for rapid and unambiguous identification
- Financial model for maintenance of PFAs and ALPPs



### F<sup>3</sup>: Fruit Fly Free

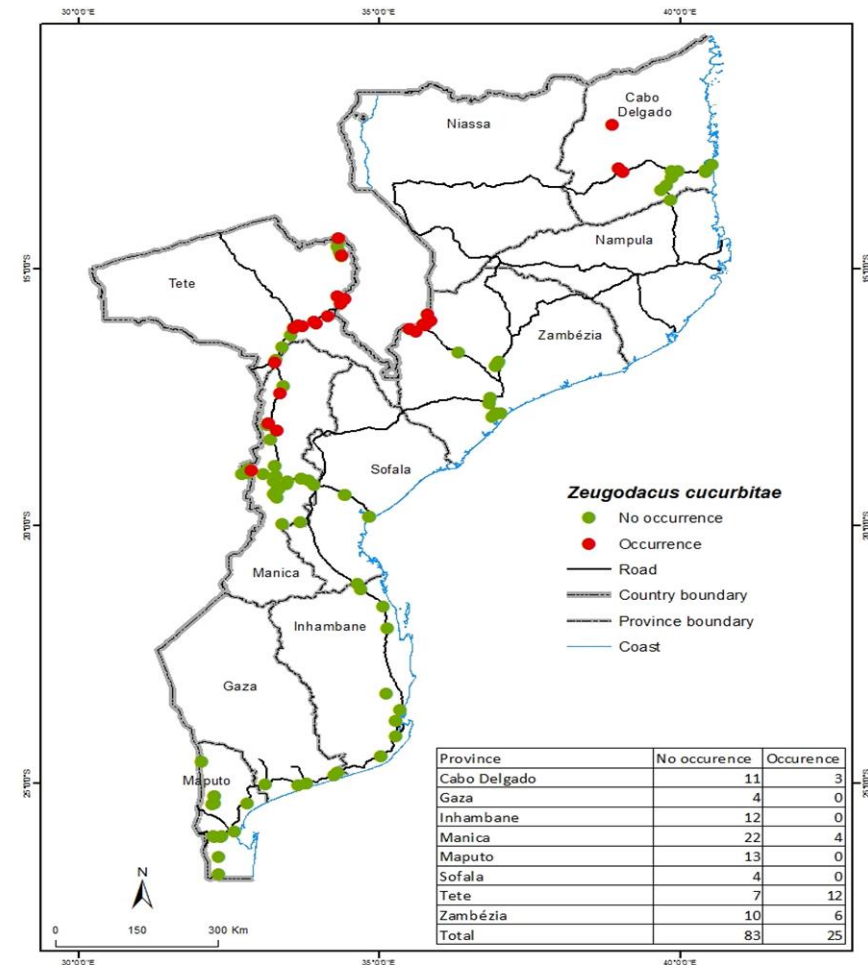
## Success

### South Africa

- Oriental fruit fly and Mediterranean fruit fly, surveys continued in all the designated areas with good results emanating.
- Suppression of the Mediterranean fruit through an area wide integrated pest management system which includes the release of sterile male flies continued in designated areas.

### Mozambique

- Cuelure baited traps were serviced on a monthly basis in the proposed PFAs for melon fly (Maputo, Gaza and Inhambane) as well as in the buffer zone (Manica and Sofala). The southern part of Mozambique (Maputo, Gaza and Inhambane) had no catches of melon fly.



## Success

- Historical information on trap catches of Mediterranean fruit fly and Oriental fruit fly and rejections due to fruit fly infestation at packhouses in all target crops, except pome fruit, were obtained and analyzed.
- An electronic multi-entry identification tool for the 29 taxa of agricultural importance (Africa) was converted into a mobile application by LUCID company (Australia) and is downloadable for free.
- Links

[https://play.google.com/store/apps/details?id=com.lucidcentral.mobile.fruit\\_flies\\_africa](https://play.google.com/store/apps/details?id=com.lucidcentral.mobile.fruit_flies_africa)

<https://apps.apple.com/app/key-selected-fruitflies-africa/id1600205756>





## Challenges

- Delays in surveys in South Africa as a result of COVID as well as procurement delays of Cuelure for melon fly. Since melon fly is not known to occur in South Africa it is not registered to be used and must be imported under a special permit by suppliers. Cuelure baited traps were included in the national trapping grid from April 2022 and in selected areas since February 2021.
- In Mozambique, there is no availability of lures and other Integrated Pest Management (IPM) tools.
- Analysis of historical information was challenging due to limited data sets obtained from producers, fruit fly monitoring services and inspection services.
- The larval multi-entry identification key is partially delayed because of COVID related restrictions.





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# Thank you

## IPPC Secretariat

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