

Control of fruit fly pests using Sustainable Agro-ecological Tephritid Operational Management

SATOM



> CHALLENGES

In the context of environmental challenges and the need for more sustainable fruit fly control, Sustainability of Agro-ecological Tephritid Operational Management has been brought forward as an important and comprehensive strategy for a better fruit fly control. It concerns mainly tropical but also temperate fruit fly species.

For growers, extension services, national institutions & donors, SATOM can be used to reduce costs and environmental impact, enhance yield and fruit quality, improve image and appropriate performance indicators of different fruit value-chains.

> CIRAD'S EXPERTISE

CIRAD scientists are expert in fruit production through different value-chains.

Specific expertise has been acquired through field work in Mascarene Islands, South America and West Africa through national and/or regional fruit fly control programs since the 90^{ties}.

Best tools have been gathered into Integrated Pest Management package according to different targeted tephritid species in relation to different Agro-Ecological Zones. The sustainable component, biological control, was the most important component in the IPM-package proposed.

Mango, citrus, guava, star-fruit and olive tree value-chains were part of the various projects undertaken.

> CIRAD IN A NUTSHELL

CIRAD is the French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions. With over 100 countries, it works to generate new knowledge, support agricultural development, and contribute to the debate on the main global issues concerning agriculture, food and rural territories. It has a staff of 1650, including 800 researchers.

Crop management, agro-ecology and environmental impact assessments are major fields of activity to them.

Visit CIRAD website:
www.cirad.fr

SATOM

Sustainable Control of Fruit Fly Pests

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OUR EXPERTS IN FRUIT FLY MANAGEMENT

The HortSys research unit develops agro-ecological tools in West Africa (Benin, Burkina, Côte d'Ivoire, Ghana, Guinea, Mali, Senegal...), East-Africa (Kenya), Indian Ocean (Madagascar, Reunion), Caribbean islands, etc.

Anais CHAILLEUX and Jean-François VAYSSIERES are Hortsys Research Unit specialists on fruit fly management.

> WHAT WE ARE OFFERING

- Expert services on fruit fly identification, project identification and project writing on targeted fruit flies of economic significance.
- Technical support of projects and review of manuscripts on fruit fly management.
- Training courses, Farm Field School on fruit fly IPM-package.

> PROJECT REFERENCES & PUBLICATIONS

- **UEMOA PROJECT (2012)**: "Mise au point et de méthodes alternatives et durables de lutte diffusion contre les mouches des fruits en Afrique de l'Ouest" = WAFFI III with 9 West African countries.

- **CORAF PROJECT (2014-2016)**: Fruit fly control technologies dissemination and capacity building of West African fruit value chain stakeholders in 6 West African countries.

- Vayssières J.-F. et al (2014). Annual population dynamics of mango fruit flies (Diptera Tephritidae) in West Africa: socio-economic aspects, host phenology and implications for management. *Fruits*, 69: 207-222.

- Brévault T. et al (2014). DIVECOSYS: Bringing together researchers to design ecologically based pest management for small-scale farming systems in West Africa. *Crop Protection*, 66: 53-60.



Control of mango tephritid larvae by *Oecophylla longinoda* in Benin © J.-F. Vayssières.



Mangifera indica (cv Brooks) © J.-F. Vayssières Cirad