Stakeholders' workshop on the development of a framework for management strategies for invasive exotic fruit fly pests
Wednesday 26 June 2024
Lemoenkloof Boutique Hotel, Paarl, South Africa

Introduction

The import and export of fresh commodities, the movement of people between countries, and changes in agricultural landscapes and the global climate are increasing the risk of the spread and introduction of invasive exotic pests, including fruit flies and other organisms, into new areas. Once these pests are detected, immediate management strategies must be implemented to eradicate them. If the pests establish themselves, long-term management strategies are required to suppress them. Both suppression and eradication actions have significant economic and environmental consequences.

Case Study: *Bactrocera dorsalis* in South Africa

Bactrocera dorsalis (*Bd*) is an example of an invasive exotic pest in South Africa. When *Bd* is detected in pest-free areas, rapid eradication actions are necessary. In areas where Bd is established, long-term suppression strategies are required.

Project REACT

The project REACT (*Rapid elimination of invasive agricultural insect pest outbreaks by tackling them with Sterile Insect Techniques programs*) aims to tackle invasive pests like *Bd* using environmentally friendly management strategies, such as the Sterile Insect Technique (SIT). Supported by the EU Horizon 2021 Farm to Fork Research and Innovation Actions, REACT focuses on developing sustainable pest management strategies.

Stakeholder Engagement

For the successful implementation of SIT, it is crucial to gather the perceptions of stakeholders affected by *Bd*. Understanding the damage caused and the management strategies required will form the framework for developing a cost-benefit analysis model for SIT. This model can later be used to quantify management strategies for other invasive exotic and national pests.

Workshop Objectives

In this workshop, we aim to:

1. Understand the challenges stakeholders face with fruit fly pests and other insect pests.
2. Assess the perception of the impact of *Bd* invasion.
3. Evaluate current fruit fly management strategies.
4. Determine whether SIT would be an acceptable technology for combating *Bd*.

Expected Outcomes

The insights gained from this workshop will be invaluable for designing and implementing cost-effective, environmentally friendly strategies to combat invasive exotic pests. We plan to build relationships during these workshops that will form the basis for ongoing dialogues throughout the project.

We greatly appreciate your contribution to the workshop and look forward to your valuable insights.

AGENDA
Wednesday 26 June 2024
Western Cape (Lemoenkloof Boutique Hotel, Paarl)

9:00 – 09:30: Registration

- Coffee will be provided

9:30 – 10:30: Welcome and Introduction

- Outline aims, structure, and expectations of the workshop
- Introduction to the REACT project
- Overview of cost and benefit model development for managing invasive exotic fruit fly pests
- Validate typical cost and revenue in the value chain in 2023
- Feedback and validation of 2023 voluntary survey, including:
    - Management strategies and costs for fruit fly pests and *Bd*
    - Estimates of losses due to fruit flies
    - Feasibility of SIT for *Bd* control
    - Perceptions of *Bd* invasion and management strategies

10:30 – 12:30: Small Group Discussions (led by REACT Team)

- Major insect pest problems on citrus, management strategies, and costs
- Ranking of insect pests and fruit flies, damage levels, and control costs
- Impact of *Bd* and associated management strategies
- Chemical use in management strategies:
    - Restrictions and challenges with residues (MRLs)
    - Registration issues in the EU for active ingredients
    - Effects on applicator health, biodiversity, water, and soil quality
- Costs of Global Gap certification, audits, permits, and system approaches
- Market access issues when management strategies fail or residues exceed MRLs
- Impact of pests on fruit safety, prices, and production practices, including organic cultivation

12:30 – 13:00: Feedback and Conclusion

- Present outcomes from group discussions
- Summarize results
- Suggest parameters for cost and benefit model
- Conclude workshop

13:00 – 14:00: Lunch