



ORGANISMO INTERNACIONAL REGIONAL  
DE SANIDAD AGROPECUARIA

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*Simulation exercises as an  
approach to be prepared  
for a Foc TR4 outbreak:  
OIRSA experiences*

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# Introduction

Effective attention to the potential impacts that can be caused by the verification of the presence of a quarantine pest translated into a phytosanitary emergency depends on the elaboration of coordinated actions that, well executed, allow minimizing the possible impacts to acceptable levels.

Action/Contingency Plans are not merely theoretical exercises, they must be tested frequently to be evaluated, adjusted and updated before and after an emergency precedes.







## Simulator

It is a **cabinet exercise** that recreates a hypothetical disaster situation, in which the participants must make decisions based on the information they receive during the exercise.

What is the difference  
between simulator  
and simulation?

## Simulation

It is a **practical exercise** of execution of operative actions that is carried out through the staging of damages in a hypothetical emergency.



# ■ Simulation exercises: OIRSA Region



**Exotic fruit flies**



**Citrus diseases: HLB**



**Central American Locust**



**Khapra beetle**



**Foc TR4**

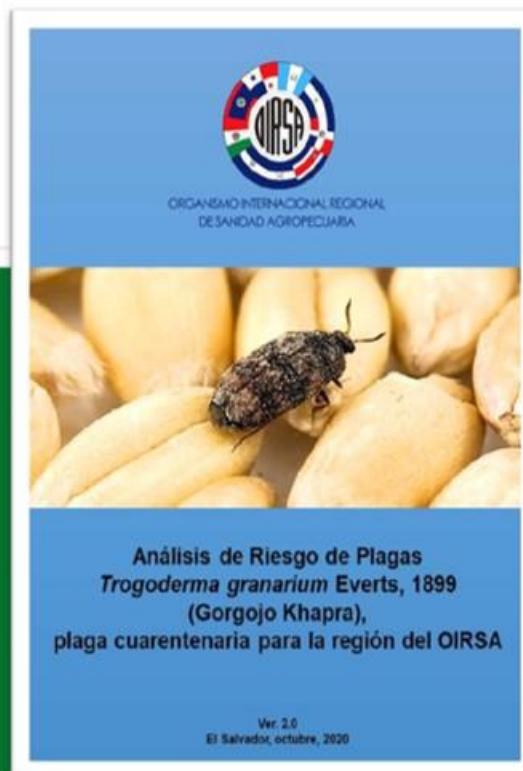
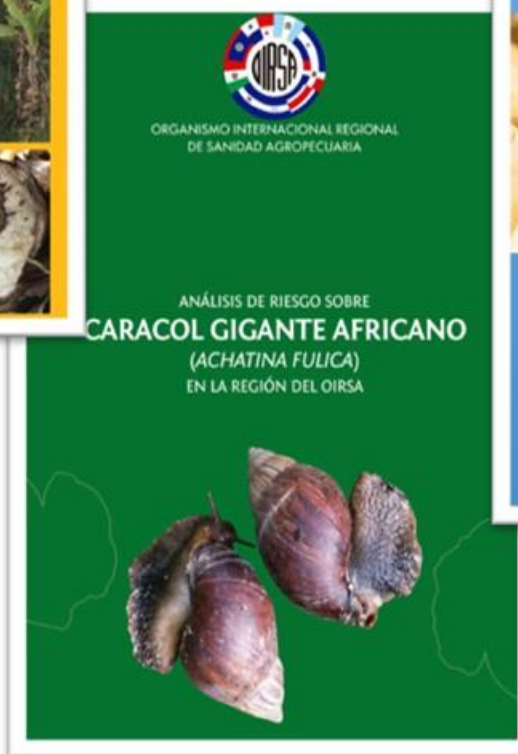
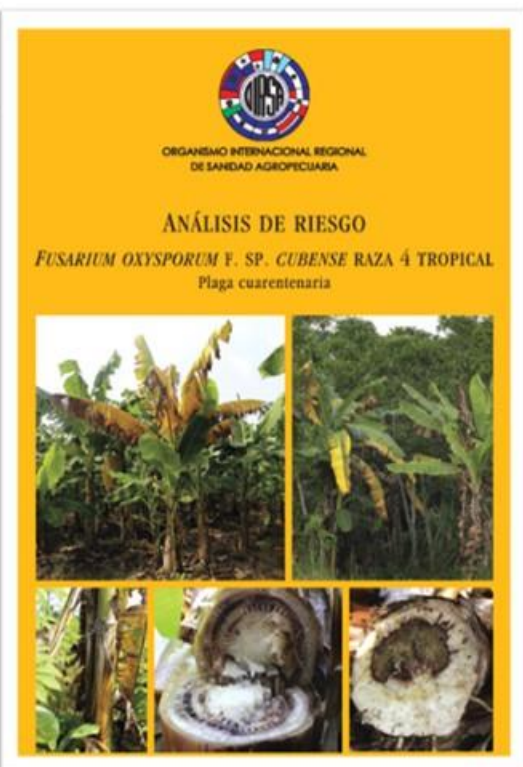


**Giant African snail**





# ■ Requirements to perform a simulation





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## A. Simulation types







# Detection at border points: international airports, ports and borders



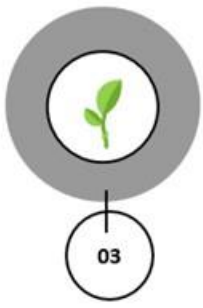




# Field detection and laboratory diagnosis







# Characterization, delimitation, containment and management of outbreaks





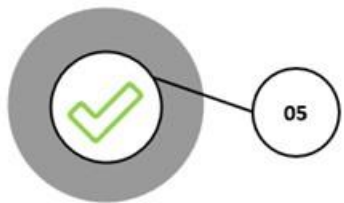


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## Emergency management upon confirmation of the outbreak







## Evaluation of all simulations





## ■ B. Simulation goals

- Test the effectiveness of the management Action Plan.
- Test the effectiveness of the Contingency Plan vs. Foc TR4
- Assess capabilities.
- Improve communication and coordination.
- Assess overall responses from groups, services, response teams, and others.





## ■ C. What features should a simulation have?



- Simulation is done in real time.
- Mainly practical actions are executed..
- They are recreated in an environment similar to that presented in a real situation.
- The times are measured from the activation of the alarms.
- There are observers or evaluators.



## ■ D. Utility of simulation in preparedness and response

- ① Identification of roles, evaluation of capacities and functions.
- ② Evaluation of the functioning of the command coordination in the field and in conditions similar to the real ones.
- ③ Management: Inter-institutional coordination.
- ④ Evaluation of response times.
- ⑤ Evaluation of techniques and skills learned.
- ⑥ Real-time evaluation of the Contingency Plan.







## ■ E. Necessary conditions to develop a simulation

- a An organizational structure for emergencies, duly institutionalized and with an action plan.
- b Identification of the elements to be evaluated through the simulation exercise.
- c A risk scenario that considers threats, vulnerabilities and capabilities.
- d An area (border point, laboratory, farm) with adequate physical-environmental conditions to recreate emergency situations with minimal risk for the participants.
- e Institutional support, financial resources and adequate logistical support.



## F. Organizational structure for conducting simulations

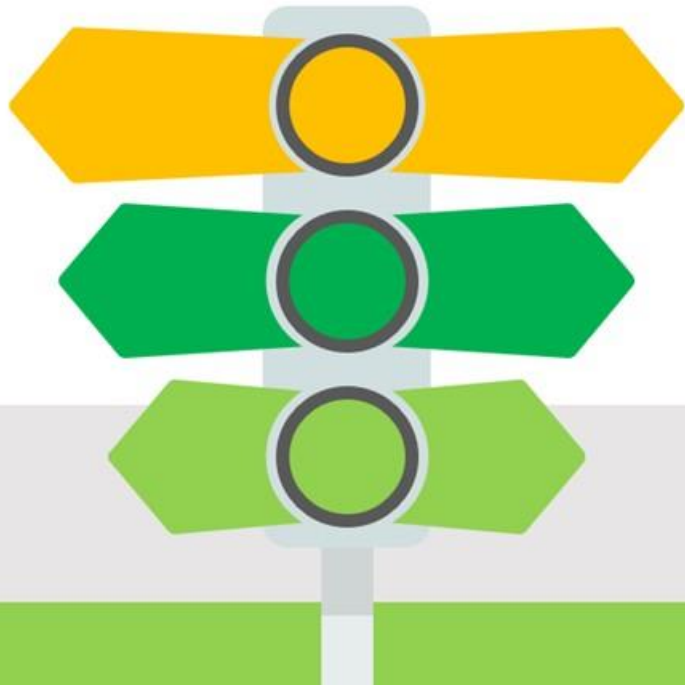
1. Coordinator
2. Manager
3. Evaluators
4. Logistics team





# Foc TR4: Steps in a simulation

OIRSA-NPPO experience







# Foc TR4: Steps in a simulation

OIRSA-NPPO experience



01

Planning

02

Design and visualization of the simulation

03

Execution of the exercise

04

Evaluation





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## Planning

It consists of defining the fundamental parameters and the general characteristics of the exercise:

- Type of simulation to develop
- Purpose
- Goals
- target audience
- Budget
- Check list
- Inter-institutional coordination



**Foc TR4: Steps in a simulation**

OIRSA-NPPO experience





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## Design and visualization of the simulation (pre-simulation)

Technical characteristics of the exercise, from the scenario to the schedule.

- Farm and its facilities.
- Duration.
- Chronology (protocol act, sequence of simulations, etc.)
- Logistics: communications system, hydration and snacks, media relations, exercise evaluation.
- The development of several pre-simulations is considered if necessary.



**Foc TR4: Steps in a simulation**

OIRSA-NPPO experience





## Execution of the exercise:

Normal development of everything planned by issuing an alert.

- Protocol Act
- Arrival at the farm – internal quarantine cordons
- Delivery of general instructions and information
- Biosafety Clothing – Mandatory
- Signposting throughout the route
- Recorrido por cada estación (según el tipo de simulacro)



## Foc TR4: Steps in a simulation

OIRSA-NPPO experience



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## Evaluation:

- Evaluation of the simulation by the participants.
- Evaluation of the simulation by the evaluators (OIRSA, FAO, Foc R4T Phytosanitary Command and other invited experts)



## Foc TR4: Steps in a simulation

OIRSA-NPPO experience





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The end product is an edited video that captures the simulation experience and serves as input for future simulations.





# Conclusions







It is the only exercise that allows us to go from theory to practice... Its goal is to PREVENT



It is an exercise of organization and identification of responsibilities, for future decision-making in case of having a real case.



The scenario (border, farm or laboratory) and the script require very detailed information and organization to recreate the emergency and facilitate understanding and monitoring of actions.



The simulation must be evaluated and the results of this evaluation must lead to the updating of the national Contingency Plans.







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*Let's hear your  
questions!*

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