

INNOVATIVE CAPACITY DEVELOPMENT TOOL: VIRTUAL 3D SIMULATION ROOM

Innovations for Foc R4T

Motivation AI-powered immersive techniques

Video of AI simulation room functionality with immersive techniques

New development arenas for 2025-2026

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OIRSA

19th Session of the Commission on Phytosanitary Measures

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TECHNOLOGICAL INNOVATIONS FOR FUSARIUM WILT (FOC R4T)

Digital Solutions (VIGIMUSA)

Phytosanitary intelligence platform for Foc R4T monitoring

Applications for reporting suspicious plants and digital diagnosis

Chat bot and Siri

- Field Detection and Entry point (borders)
 - Robot dogs and trained canines for Foc R4T detection
- **3** Remote Monitoring

Satellite and drone surveillance of affected plants

4 Rapid Diagnostics

Reactive strips for quick Foc R4T diagnosis (August 2025)

3D ARTIFICIAL SIMULATION ROOM WITH IMMERSIVE TECHNIQUES



CPM 19

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WHY USE AI WITH IMMERSIVE TECHNIQUES?

Emergency Response

1 Rapid reaction to different pest scenarios

Phytosanitary Measures

Implementation at airports, ports, land customs
Biosecurity

High Training Demand

Meeting OIRSA region NPPO requirements

Evaluation Process

Technical cross-audits for rapid response capabilities

In carrying out simulations of Foc R4T and other pests

3

4



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PLANNING NEW 3D AI ARENAS

Fruit Flies

Virtual detection and control methods

Citrus HLB

Disease progression and management

Tomato Leaf Miner

Tuta absoluta identification and treatment

Kapra Bettle

Recognition and containment procedures

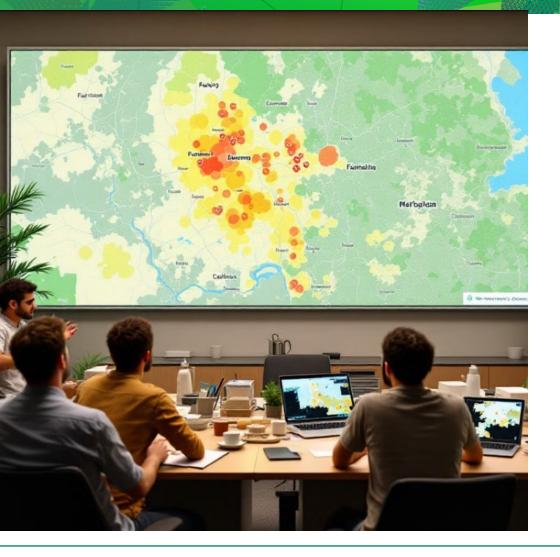
Fall armyworm

Integrated Pest Management (IPM



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PLANNING NEW 3D AI ARENAS

Climate Change And Pest Epidemiology

New disease spread vectors

Changing host-pest relationships

Altered pest development cycles

Modified control measures needed

Electronic Certification (ePHYTO)

Real-time validation of certificates

Humanitarian AID Simulation

Phytosanitary Measures Apply

Smart monitoring

Inter-institutional coordination



Thank you