



REACTIVE APPROACH TO DISEASE
MANAGEMENT IN AGRICULTURE



Why Reactive?

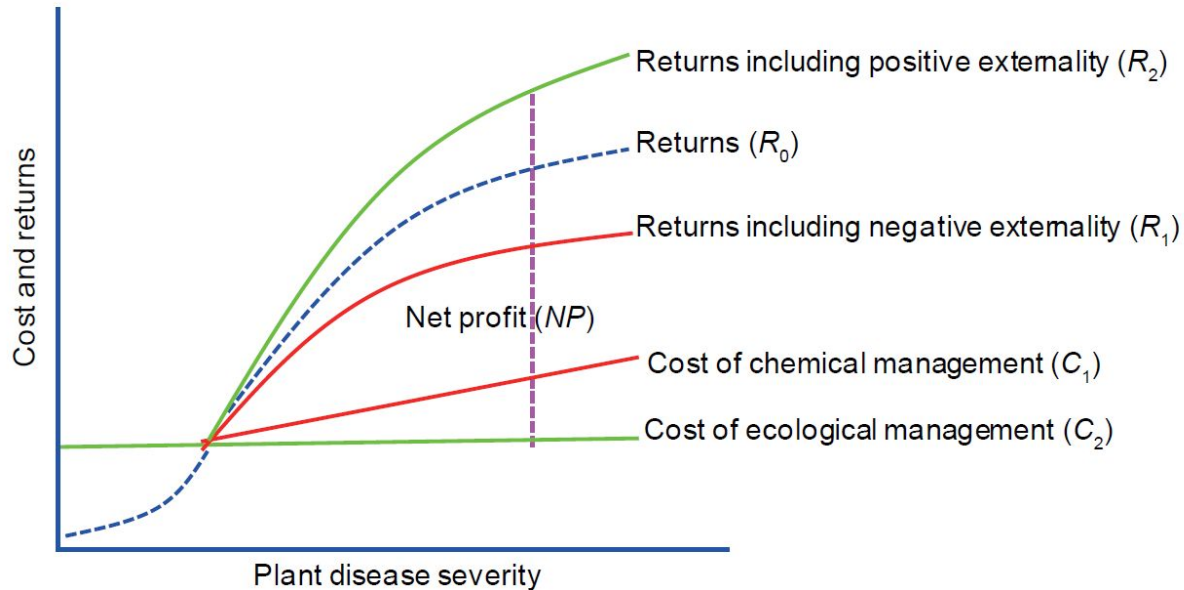


Costs



Disease prevention
constantly creates new
diseases to prevent.

When prevention fails.....





Environmental Sustainability

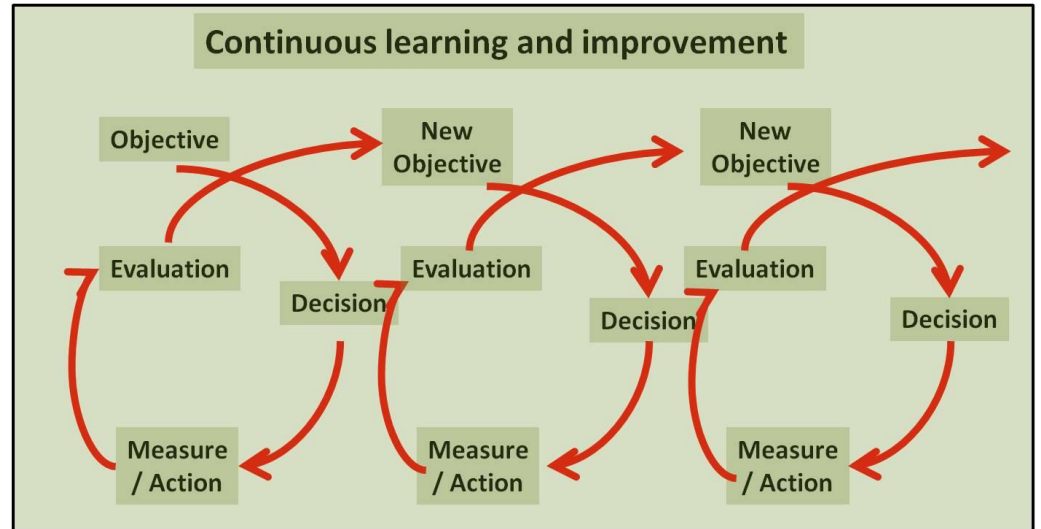


Climate Change

A **report** from the Intergovernmental Panel on Climate Change finds that about 30% of global emissions leading to climate change are attributable to agricultural activities, including pesticide use.

Biodiversity

Integrated farming: an “Agile”
process for agriculture





Technologies



Detection

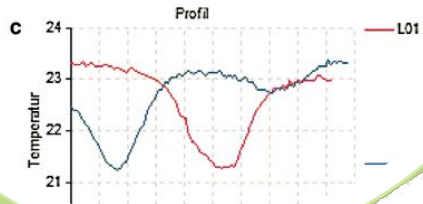
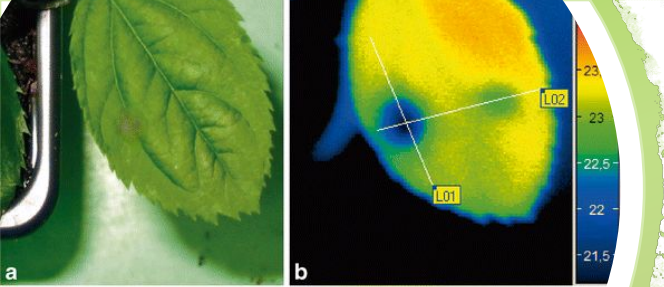


Diagnosis



Cure





Detection

- Drones (UAV)
- Remote Sensing (RS)
- Wireless Sensor Networks (WSN) [1]
- Open-Ended Coaxial Probes [2]
- Computer Vision
- Autonomous Nano Sensors

[1] Wireless sensor networks (Decision Support System for Plant and Crop Treatment and Protection Based on Wireless Sensor Networks) - IEEEExplore.

[2] Microwave Characterization of Hydrophilic and Hydrophobic Plant Pathogenic Fungi Using Open-Ended Coaxial Probe - IEEEExplore



Diagnosis

- Artificial Intelligence (AI) [1] [2]
- Lab Analysis
- Experts



[1] Crops Disease Diagnosing using Image-based Deep Learning Mechanism - IEEEXplore.

[2] Smart mobile application to recognize tomato leaf diseases using Convolutional Neural Networks - IEEEXplore.



Cure

- Nano Silver
- Magnetic Nanoparticles
- Traditional Treatments
- Agronomic & Biotech Methods

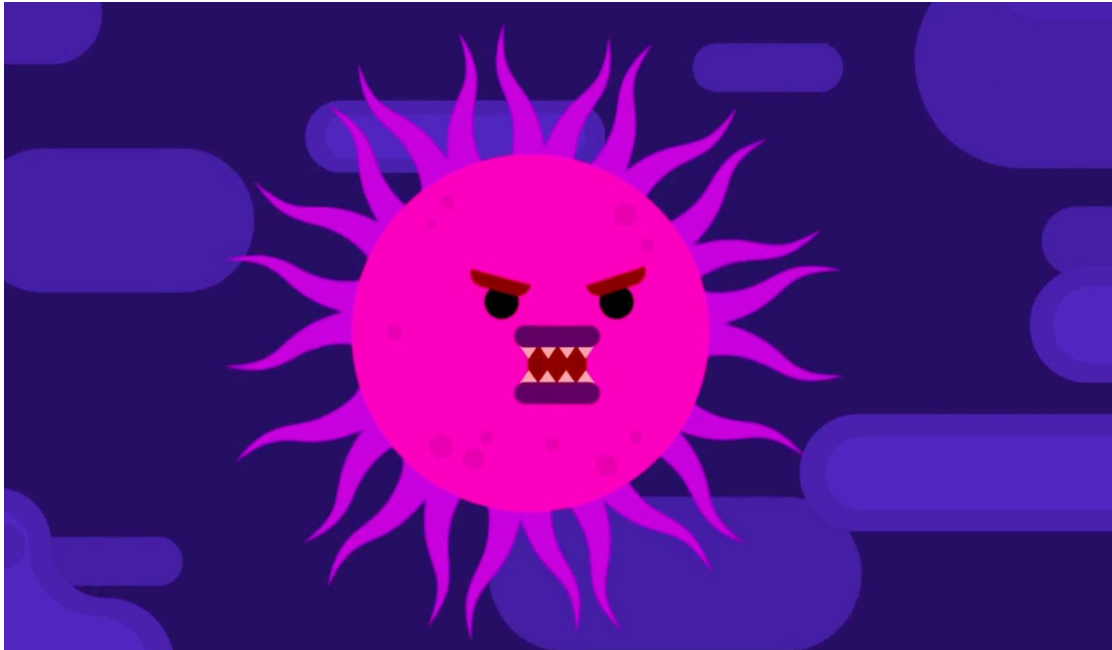
CAPTURE. IDENTIFY. TREAT.

Artificial intelligence-based solution that enables farmers to identify and treat plant diseases and pests.



Health





Superbugs

700.000 human deaths each year related to antimicrobial resistance

Thanks for the attention
