



Federaal Agentschap voor de Veiligheid van de Voedselketen  
Agence fédérale pour la Sécurité de la Chaîne alimentaire  
Föderalagentur für die Sicherheit der Nahrungsmittelkette  
Federal Agency for the Safety of the Food Chain

FAV  
AFSCA  
FASNK  
FASFC

## PROTECTING PLANTS, PROTECTING LIFE

### SCIENTIFIC RESEARCH AND ITS APPLICATION TO THE CONTROL PROGRAM OF THE FASFC



INTERNATIONAL YEAR OF  
**PLANT HEALTH**  
2020

Belgian scientific plant health symposium

Jan Van Autreve – 15/10/2020

# Federal Agency for the Safety of the Food Chain (FASFC) = “Food Safety Agency”

- **Mission:** to preserve the safety of the food chain and the quality of our food in order to protect the health of humans, animals **and plants**.
- **Competences:**
  - Operational regulations
  - Registration, authorization, approval of operators
  - Export certification
  - Prevention, awareness and information
  - Surveillance of the different links in the chain (products and productions processes)



# FASFC Organization



# Control program plant health: Surveys and Import Controls

- Plant health legislation: harmonized in the EU.
- Plant Health Regulation (EU) 2016/2031: proactive approach with focus on prevention of introduction of pests into the EU.
  - focus on preventive measures, thorough **surveillance** of the territory and preparedness for possible outbreaks
  - Stricter phytosanitary **import controls** on plants and plant products from third countries



# Control program plant health: Surveys and Import Controls

- 230 quarantine pests -> 20 priority pests: mandatory surveys (e.g. *Xylella fastidiosa*, *Anoplophora chinensis*, *Bactrocera dorsalis*)
- Pests subject to Union measures (e.g. Tomato brown rugose fruit virus, Rose Rosette virus)
- Pests known to occur in the Union territory with containment measures (e.g. *Clavibacter sepedonicus*, *Globodera pallida*)
- Other (emergent, risk based)



# The core process of the FASFC



# Example 1 (1)

## *Xylella fastidiosa*

- Priority pest
- Associated with serious diseases in a wide range of plants
  - olive quick decline syndrome, Pierce's disease in grapevine ...
- Interaction between the bacterium, host plants, insect vectors (xylem-sap feeders) and environmental conditions
  - different subspecies, sequence types, associated with different host ranges
- Present in Italy, France, Spain, Portugal
  - apart from an isolated detection (2018) on recently introduced olive trees, not in Belgium



Photos: Donato Boscia, CNR - Institute for Sustainable Plant Protection, UOS, Bari (IT); Françoise Petter (EPPO)

# Example 1 (2)

## *Xylella fastidiosa*

- Most information about host plants, vectors described from the conditions in European Mediterranean countries and in the Americas
- Survey on the Belgian territory: need for information on local possible host plants and vectors
- Same info also needed for measures in the event of a finding or outbreak



Photos: Donato Boscia, CNR - Institute for Sustainable Plant Protection, UOS, Bari (IT); Françoise Petter (EPPO)



# Example 1 (3)

## *Xylella fastidiosa*

- => XYLERIS:
  - Fitness of *Xylella fastidiosa* in plant hosts and vectors in Belgium with investigation of specific plant growth conditions on disease development
- => XYFABEL:
  - The fate of *Xylella fastidiosa* in common woody plant species in Belgium and the analysis of communities of endophytic xylem-inhabiting bacteria as possible markers for its presence and activity
- => X-FAST:
  - Biological characteristics of potential vectors of *Xylella fastidiosa* to support sampling and containment procedures



Photos: Donato Boscia, CNR - Institute for Sustainable Plant Protection, UOS, Bari (IT); Françoise Petter (EPPO)

## Example 2 (1)

### Non-EU *Tephritidae* (fruit flies or fruit borers)

- major economic damage in fruit and vegetable growing and horticulture sector
- listed as Union quarantine pests
- 4 of them as EU priority pests:  
*Anastrepha ludens*, *Bactrocera dorsalis*,  
*Bactrocera zonata* and *Rhagoletis pomonella*
- regularly intercepted on imported fruit and vegetables



Photos: Scott Bauer USDA; Johan Witters, ILVO.

## Example 2 (2)

### Non-EU *Tephritidae* (fruit flies or fruit borers)

- Import interceptions: fast identification needed (notifications, measures ...)
- =>TEPHRIFAST: development of a fast identification method for fruit flies in phytosanitary controls
- Survey on the Belgian territory: most suitable risk locations, appropriate approach with the highest reliability at a justified cost
- =>TEPHRISURV: developing effective methods for the surveillance of non-European Tephritids on Belgian territory



Photos: Scott Bauer USDA; Johan Witters, ILVO

# Information from scientific sources, scientific research applied to the control program of FASFC

- National and European reference laboratories
- Scientific Committee of FASFC
- Knowledge and research stations
- Many other Belgian and European projects
- EFSA
- EPPO
- FASFC laboratories
- Universities
- ...



Special thanks

to the researchers

to my colleagues in the different FASFC services

Thank you for your attention!

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