



# **Better Training for Safer Food** *Initiative*

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## **Other Emergency Decisions**

**Session 14**

# Other Emergency Control Measures

- *Anoplophora chinensis* (2012/138/EC)
- *Anoplophora glabripennis* (2015/893)
- *Pepino mosaic virus* (2004/200/EC)
- *Phytophthora ramorum* (2002/757/EC)
- *Pseudomonas syringae* pv. *actinidae* (2012/756/EU)
- *Rhynchophorus ferrugineus* (2007/365/EC)

*Anoplophora chinensis* and *A. glabripennis*

**Similar biology and  
Emergency Measures**





***A. glabripennis***  
WPM – main  
pathway



***A. chinensis***

Plants for planting – main pathway

## Favoured Hosts

*Acer* (maples and sycamores)

*Aesculus* (horse chestnut)

*Betula* (birch)

*Populus* (poplar)

*Salix* (willow, sallow)

*Ulmus* (elm)

Many other hosts



**Adults live 3 months**



**Females lay up to 200 eggs**

**Development cycle**



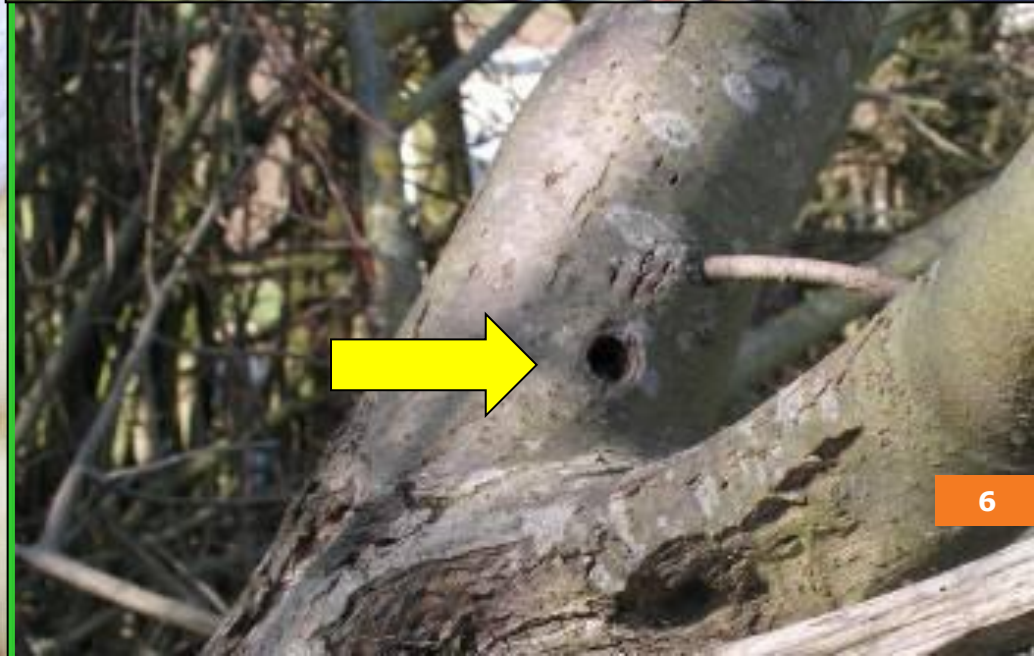
**Larvae 1-4 years**



pupae



你好 - Hello









# Detection



frass



Oviposition scars



Exit  
hole

# *Anoplophora glabripennis*

## Pathways of Introduction

- Wood packaging from China
- PfP lower risk





European  
Commission

# *A. chinensis*

## Pathway of Introduction

- Plants for planting (young Acer plants & bonsai)



# Emergency measures similar for both *Anoplophora* species

Import requirements for certain host species from third countries where pest occurs **plus**

- MS with outbreaks (demarcated areas)
- Controls on wood for ALB
- Annual survey requirement for MSs
- Specify measures for outbreaks

# Import requirements from countries with *Anoplophora*

- Import requirements on specified plants to ensure freedom
- production for **whole life in PFA** established by the NPPO

OR

- complete physical protection for **2 years prior to export** PLUS
- preventative treatments and a buffer zone (2km radius)

# Measures for EU outbreaks

- Establish demarcated area (infested area plus initial 2km buffer zone)
- Destroy infested plants
- Removal of all specified species within 100 metre radius
- Movement restrictions on specified plants (+ wood) within the buffer zone

# *Anoplophora* Summary

- Extremely damaging pests
- Hard to detect infestation in traded plants and plants for planting
- Large numbers of infested Acers imported in past – undiscovered outbreaks of CLB?
- Infested WPM – still a problem
  - **more outbreaks likely in the future**
- Emergency Measures – provides protection and harmonises outbreak measures



# Emergency Decision 2004/200/EC

## *Pepino mosaic virus (PepMv)*



# Hosts of PepMV

- Primary host -tomato
- First described on Pepino in Peru
- Also affects potato and tobacco
- First found in Europe in NL in 1999
- Now widespread in fruiting crops in many countries
  - **No outbreak measures specified**

**MAIN IMPACT ON FRUIT QUALITY**  
**DAMAGE DEPENDS ON STRAIN AND ISOLATE**

# Spread of PepMV

- Easily spread in sap  
Handling plants, leaf contact, knives, crates – FRUIT PATHWAY
- 'On seed' – low transmission rate  
SEED MOST IMPORTANT PATHWAY  
MOST SEED FROM THIRD COUNTRIES
- Survives only a few days in dried tomato sap  
(maximum -14 days)

# Seed Imports from Third Countries

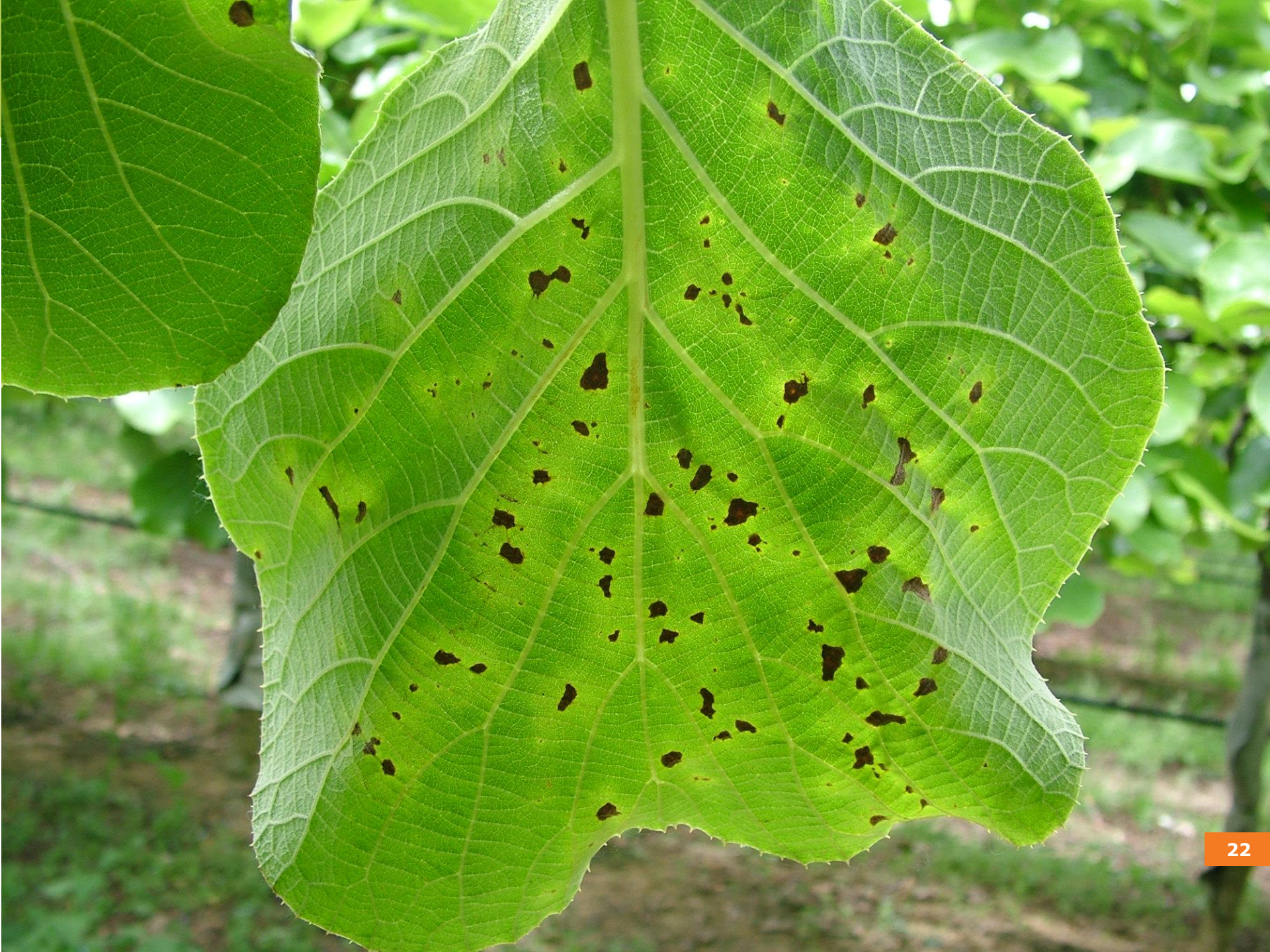
- Appropriate acid extraction  
**AND**
- Areas where PepMV is known not to occur **OR**
- No symptoms seen during complete cycle of vegetation **OR**
- Official testing of representative sample of seed - free from PepMV

# Summary of PepMV

- PepMV present in many MS – fruiting crops
- Seed still source of infection
- Increasing seed treatment with sodium hypochlorite by industry
- Dutch growers inoculating plants with less virulent strain of PePMV
- PepMV RNQP in the future?

## Kiwi canker (2012/756/EU) *Pseudomonas syringae* pv. *actinidiae*

- First described in Japan in 1980s
- Found in Italy in 1992 – no real damage
- 2007/8 major damage and spread in Italy
- Damage more severe on yellow fleshed kiwifruit (*A. chinensis* cvs. 'Hort 16A' and 'Jin Tao') than on the green fleshed cultivar (*A. deliciosa* cv. 'Hayward').
- Younger plants (<5 years) more damaged









# EU Decision – stop spread in plants for planting and on pollen

- Country pest freedom
- Pest free Area
- Pest free place of Production
  - structure to exclude pest – official inspections
  - 'surrounding' 500 zone – inspected, sampling and testing; no findings if disease during last cycle of vegetation
  - surrounding 4km zone - official inspections eradication infected plants plus any within 5m
  - Mother plants individually tested official inspection



# Emergency Decision (2002/757/EC) Phytophthora ramorum

# *Phytophthora ramorum* - History

- First discovered in mid-1990s killing millions of tan oaks in California and Oregon in the USA - called Sudden Oak Death (SOD)
- First found in the UK, IE, NL and DE in 2002 on ornamental hosts species (rhododendron)
- Commission Decision introduced 2002 – several amendments (new hosts added)
- 2009 Japanese Larch (*Larix kaempferi*) – mature trees killed





# 2002 Emergency Decision

- Import requirements for plants & wood from the USA.
- Measures to stop spread within the community (plant passporting requirements on certain hosts)
- Measures in case of finding in places of production – destruction and quarantine
- Annual survey requirement
  - nurseries and garden centres
  - plus forests with rhododendron

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# *Rhynchophorus ferrugineus* (2007/365/EC)



# *Rhynchophorus* - biology

- Native to Asia - host range - coconut, oil and date palm
- Larvae feed within stems – difficult to detect and symptoms appear late
- Outbreaks often detected several years after infestation – 100s of larvae
- Pest spreads naturally – hard to prevent
- In Europe mainly attacked ornamental palm – *Phoenix canariensis*

# History

- Originates in Asia – spread to Egypt
- Large imports of Palms from Egypt (source of infestation)
- Repeated introductions of infested ornamental palms
- Larger 'ready for landscape' palms more at risk than smaller palms

# History

- Damage first seen in Spain in 1992
- Added to the EPPO Alert List in 1999
- PRA completed in 2003/2004
- Outbreaks in Italy 2004 , Greece 2005, France 2006 etc.
- Emergency Measures 2007



# History

- June 2007 - EU Emergency Measures
- Measures '**aimed**' at preventing further introduction of pest from Third countries and to prevent further spread within the EU

# How the palms move...



# Lessons learned from *Rhynchophorus*

- Pest not regulated in EU
- Little action after first outbreak in Spain
- Big increase in imports of large ornamental palms
  - **very susceptible**
- Pest hard to detect at import
  - **outbreaks detected several years later**
- MS and EU Commission slow to take action
- EU measures late and not very effective in preventing further pest entry from Egypt





# Thank you!

**Neil Giltrap**

## **Better Training for Safer Food BTSF**

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