



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

**Anita Benko Beloglavec  
Neil Giltrap**

**Dealing with an  
outbreak scenario of  
a non-regulated pest**

## Non-regulated pest

Non-regulated pest (harmful organism):

→ not listed in Annex I, II or in Commission implementing decisions

## Obligation for a Member State (Article 16.2 of CD 2000/29/EC)

- *To notify Commission and other MS of known or suspected harmful organisms not listed in Annex I or II whose presence was previously unknown in its territory and on measures taken*
- *Measures must be such as to prevent risk of the spread of the harmful organism concerned in the territory of the other Member States.*

## Obligation for a Member State (Commission Implementing Decision 2014/917/EU)

- *Report on suspicion/confirmation of a harmful organism in 8 working days (basic data)*
- *Completion of the report in 30 working days after suspicion/confirmation*
- *Update reports with new information or new measures taken*

## What to do?

- *Action on suspicion/preliminary/confirmatory diagnosis?*
- *Is the non-regulated organism 'harmful'?*
- *Is the non-regulated organism spread in EU?*
- *Do we take official action?*
- *Or just advisory and leave to the grower?*

# What is a 'harmful organism'?

*EC definition (2000/29/EC): "any species, strain or biotype of plant, animal or pathogenic agent **injurious to plants** or plant products"*

*= "economically unacceptable impact" ?*

*= "unacceptable environmental impact" ?*

## How to decide if 'harmful'?

- ✓ *Investigate if any other MS took action before*
- ✓ *Is a pest listed in EPPO A1/A2 or Alert list*
- ✓ *Investigate information sources on the pest*

## Action recommendations

*Preliminary risk assessment (usually within 24 hours) based on:*

*Hosts?*

*Pathways?*

*Is it a significant pest where present?*

*Will it survive our climate?*

**YES**



1. Report to EC and MS (within 8 days)
2. Temporary action to prevent spreading
3. Pest risk analysis



# Sources of information for assessment

## *EC*

- MS Report on measures?
- CIRCA – any papers?
- SCPH – discussed?
- Annex WG – discussed and proposed or rejected?

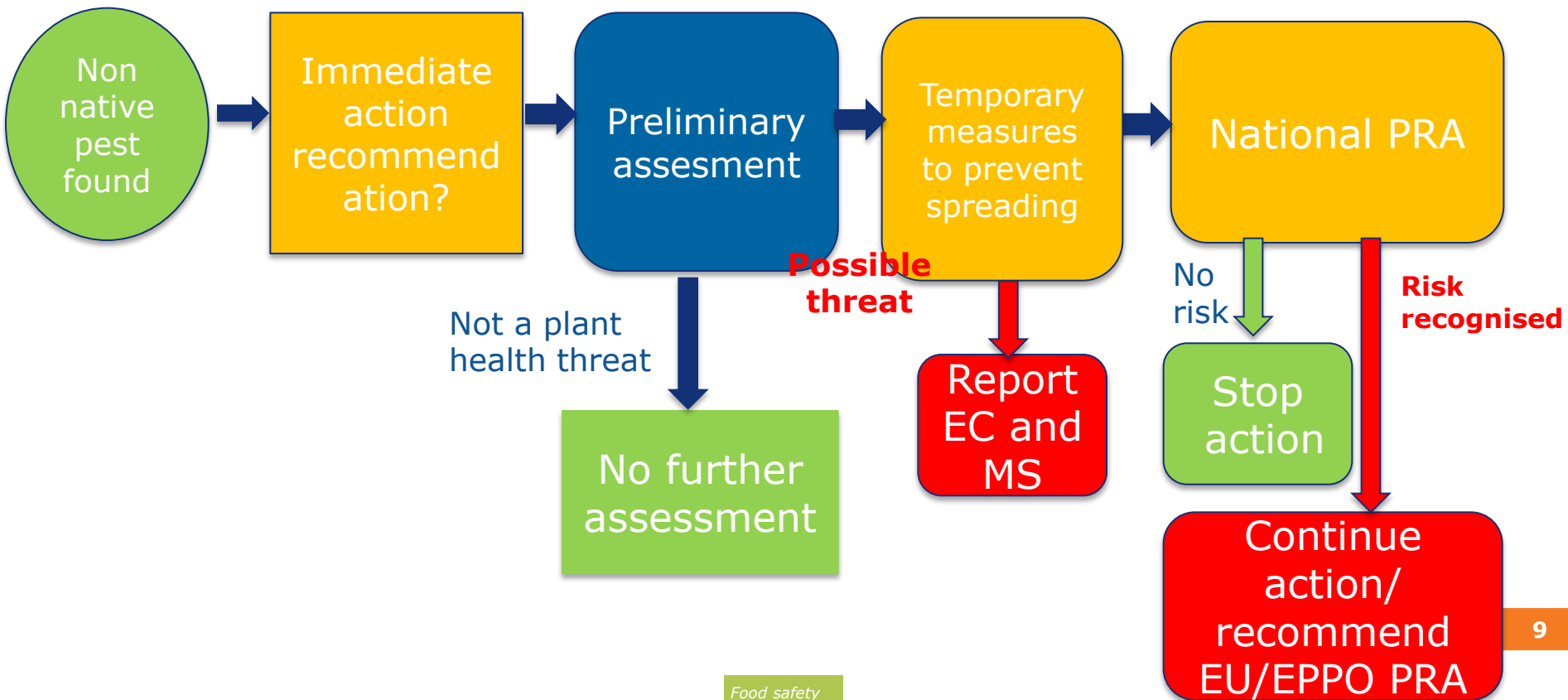
## *EPPO*

- A1 and A2, Alert list, Reporting service
- Data sheet, EPPO Global Data Base/PQR

## *Other*

- Literature and website search

# Process after finding a new pest



# Information to collect on the spot

- likely origin of the pest*
- geographical location and ownership of the affected site (any abiotic factors that may influence the outbreak e.g. public access, presence of watercourses, etc.*
- hosts infested at the site (species, variety, development stage)*
- when and how the pest was detected and identified*
- level of pest incidence and where appropriate, life stages present*
- extent and impact of damage*
- recent import or movement of host plants or host plant products into and out of the affected site*
- movement of people, products, equipment and vehicles, where appropriate*
- relevant treatments applied to host plants*
- relevant cultural practices*
- history of the pest on the site in the area.*

## Temporary action (pending decision)

- ✓ *investigation to determine the extent of an outbreak and assess the risk of spread*
- ✓ *demarcation of infested or/and probably infested plant material*
- ✓ *prohibition on movement of infested plant material*
- ✓ *delimitation of the infested area*
- ✓ *demarcation of contaminated facilities and equipment*
- ✓ *cleansing and/or disinfection of machinery, storage facilities and other equipment*
- ✓ *methods of disposal of infested or probably infested plants or plant parts, solid waste or liquid waste*

# What is a Pest Risk Analysis (PRA)?

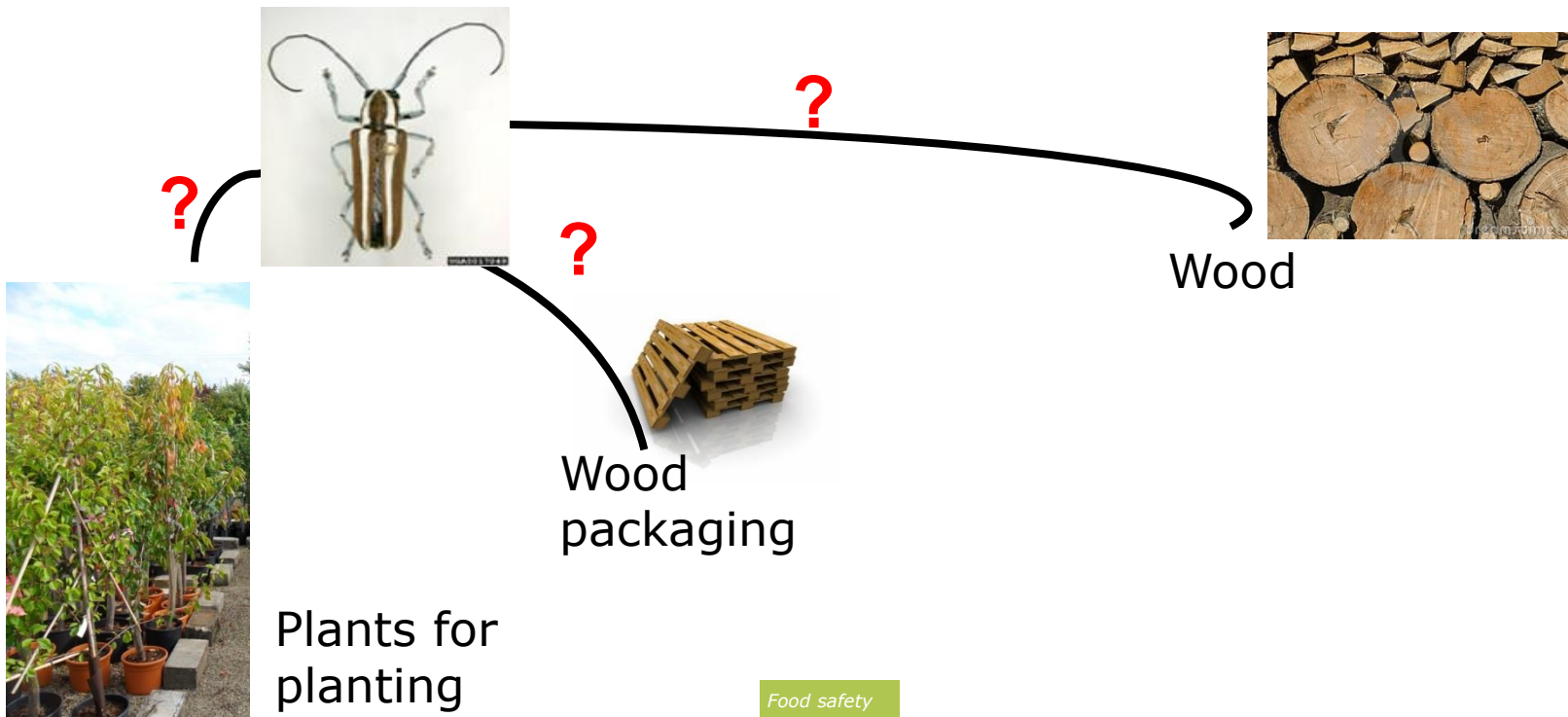
*The process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, whether it should be regulated, and the strength of any phytosanitary measures to be taken against it –  
Glossary of phytosanitary terms, ISPM No. 5*



**International Plant Protection Convention**  
Protecting the world's plant resources from pests

# PRA: Likelihood of entry

Main pathways should be identified



## PRA: Establishment / Spread

- 1. Host plants and suitable habitats*
  - 2. Alternate hosts and other essential species*
  - 3. Climatic suitability*
  - 4. Other abiotic factors*
  - 5. Competition and natural enemies*
  - 6. The managed environment*
  - 7. Protected cultivation*
- 1. By natural means*
  - 2. Human assistance*

# PRA: Potential impact - lower crop yield & quality



*Diabrotica virgifera virgifera*



*Dryocosmus kuriphylus*



# PRA: Potential impact - environmental



*Rhynchophorus ferrugineus*



*Anophlophora glabripennis*

## PRA: Potential impact - social



Destruction of  
palm trees by  
red palm weevils

Loss of  
recreation value



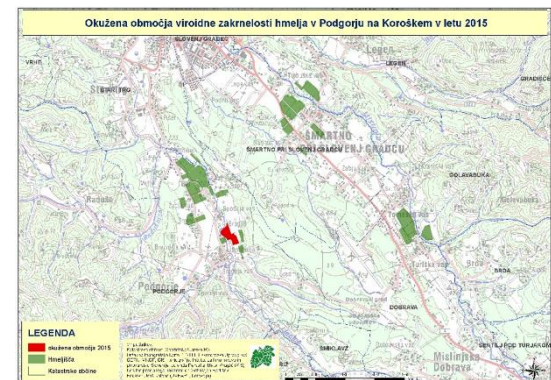
## Pest risk management

If unmitigated risk is unacceptable explore options for measures:

- i. at origin, or in the exporting country
- ii. at the point of entry, or
- iii. within the importing country or invaded area

## Action on the spot of an outbreak (measures adopted)

- ✓ *demarcation of infested or/and probably infested plant material*
- ✓ *destruction or treatment of infested plant material*
- ✓ *delimiting survey*
- ✓ *delimitation of the infested areas*
- ✓ *measures to prevent further spread such as setting up buffer zone(s)*





## Action on the spot of an outbreak (measures adopted)

- ✓ *testing of clonally-related or contact-related stocks*
- ✓ *cleansing and / or disinfection of machinery, storage facilities and other equipment*



Food safety



## Case study for unlisted pests: *Aromia bungii*



Coleoptera, Cerambycidae  
*Redneck longhorned beetle*  
Listed in EPPO A1 (2012)

### Where:

**Asia:** China, Japan, Korea, Mongolia, Vietnam, Taiwan

**America:** USA (intercepted)

**EU:** Italy (2010) – under eradication

Germany (2011) - eradicated,

UK (2008, WPM ) –intercepted



- Larvae of *A. bungii* bore galleries (17-22 cm long) in the trunk and larger lateral branches.
- Exit holes and frass are signs of the presence of the pest.
- *A. bungii* attacks healthy to slightly stressed trees.
- Larvae start feeding in early or mid-April with a peak of feeding activity from May to June.



### **Host plants:**

*Prunus* species (Rosaceae), in particular peach (*Prunus persica*) and apricot (*P. armeniaca*), and to a lesser extent plum (*P. domestica*) and cherry (*P. avium*).

### **Without damage:**

*Azadirachta indica* (Meliaceae), *Bambusa textilis* (Poaceae), *Diospyros virginiana* (Ebenaceae), *Olea europea* (Oleaceae), *Populus alba* (Salicaceae), *Pterocarya stenoptera* (Juglandaceae), *Punica granatum* (Lythraceae), *Schima superba* (Theaceae).



*Adults are black cerambycids (approximately 40 mm long) with glossy elytra and a distinctively red pronotum (although some forms may be completely black).*

***Pathway:*** *Plants for planting, wood, wood packaging material from countries where *A. bungii* occurs.*



Foto: [www.aipp.it](http://www.aipp.it)- in <http://www.naturamediterraneo.com>

## Case study for unlisted pests: *Meloidogyne ethiopica*



Galls of *M. ethiopica* on grapevine  
Dr RMDG Carneiro (Embrapa, BR)

Meloidogynidae

Genus: *Meloidogyne*

Species: *ethiopica*

### Where:

**Africa:** Ethiopia, Kenya, Mozambique, South Africa, Tanzania, Zimbabwe

**South America:** Brazil, Chile

**EU:** Greece, Turkey, Slovenia (under eradication)

## *Meloidogyne ethiopica*

Root system is distorted by small and large multiple galls and devoid of fine roots

Affected plants can also show above ground symptoms such as stunting and wilting.

**Pathway:** Infested soil and growing media, plants for planting, bulbs and tubers

**Establishment:** has the potential to survive outdoors under a continental climate and in a sub-Mediterranean climate.



## *Meloidogyne ethiopica*

### Host plants

Polyphagous pest, able to parasitize at least 80 different host plants: *Actinidia deliciosa* (kiwi), *Beta vulgaris* (beetroot), *Brassica oleracea* (cabbages), *Capsicum frutescens* (hot pepper), *Citrullus lanatus* (watermelon), *Cucurbita* spp., *Ensete ventricosum* (ensete), *Glycine max* (soybean), *Lactuca sativa* (lettuce), *Lycopersicon esculentum* (tomato), *Nicotiana tabacum* (tobacco), *Phaseolus vulgaris* (common bean), *Polymnia sonchifolia* (yacon), *Solanum tuberosum* (potato), *Vicia faba* (faba bean), *Vigna unguiculata* (cowpea), *Vitis vinifera* (grapevine), as well as on trees (*Acacia mearnsii*) and weeds (*Ageratum conyzoides*, *Datura stramonium*, *Solanum nigrum*).

## UK has “plant health risk register” to make and publish decisions on non-native pests

### Unmitigated risk

Likelihood	Impact on sector	Likelihood x Impact	Value of sector	Overall rating
4	3	12	5	60

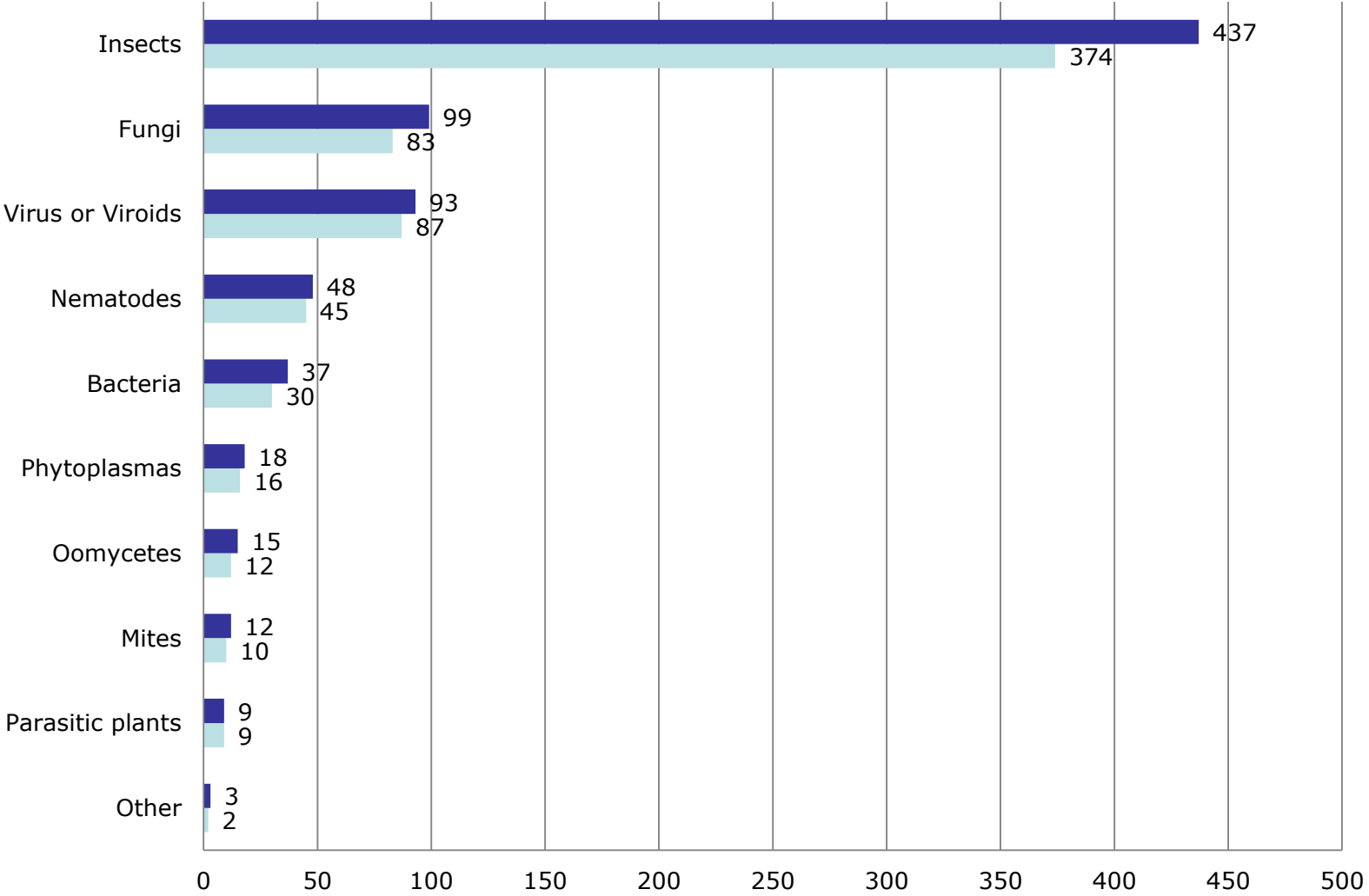
### Mitigated risk

Likelihood	Impact on sector	Likelihood x Impact	Value of sector	Overall rating
2	2	4	5	20

# Pests on risk register



European Commission



■ Mar-15  
■ Jan-14

# Risk register entry for Bronze birch borer

## Risk Ratings and Current Mitigations

**Unmitigated Risks** ⓘ show / hide

Likelihood [1 - 5] ⓘ	4
Spread [1 - 5] ⓘ	5
Impact [1 - 5] ⓘ	5
Value at Risk [1 - 5] ⓘ	5
Likelihood x Impact [1 - 25] ⓘ	20
UK Relative Risk Rating [1 - 125] ⓘ	100

**Current Mitigations** ⓘ show / hide

Regulation	✓
Surveillance	✗
Industry Scheme	✗
Contingency Plan	✗
Awareness	✓
Research	✓

**Mitigated Risks** ⓘ show / hide

Likelihood [1 - 5] ⓘ	2
Spread [1 - 5] ⓘ	5
Impact [1 - 5] ⓘ	5
Value at Risk [1 - 5] ⓘ	5
Likelihood x Impact [1 - 25] ⓘ	10
UK Relative Risk Rating [1 - 125] ⓘ	50

**Actions Indicated** ⓘ show / hide

**Action**

Statutory action against findings, with awareness raising and research to improve preparedness.

**General Comments**

Recognised as a significant threat to birch but EU regulation should help to mitigate the threat.



# Summary

- *Member states are obliged to prevent the spread of non-listed harmful organisms to other Member states*
- *Member states shall take action (e.g. eradication) on unlisted harmful organisms*
- *The action must be justified and not in conflict with decisions already made by the EU*
- *PRA is the formal process of assessing plant health risks*
- *National measures are adopted on the EU level if justified*





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

• *European Commission*  
*Consumers, Health and Food Executive Agency*  
*DRB A3/042*  
*L-2920 Luxembourg*