Les maladies émergentes des plantes potagères au niveau européen

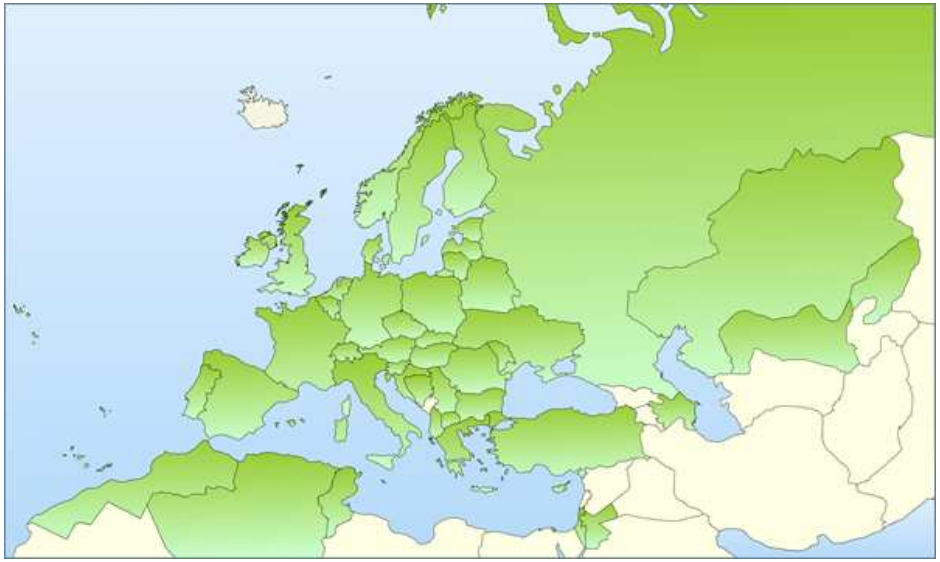
Anne-Sophie Roy (Chargée d'information)
roy@eppo.int
OEPP/EPPO, 21 bd Richard Lenoir, Paris 75011
www.eppo.int

Journées Association des Sélectionneurs Français (Penn-ar-Prat, Saint Pol de Léon, 2015-04-08/09)

Qu'est ce que l'OEPP?

Organisation Européenne et Méditerranéenne pour la Protection des Plantes

- L'OEPP est une organisation intergouvernementale
- Créée en 1951 par 15 pays
- 50 pays membres aujourd'hui
- Coopération internationale en protection des plantes:
  - quarantaine
  - produits phytosanitaires



- Travaille avec les services officiels (Services de la Protection des Végétaux)

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L’OEPP et l’Union Européenne

Les 28 membres de l’UE sont membres de l’OEPP
UE prépare des réglementations
OEPP fait des recommandations

L'OEPP: deux principaux domaines d'activités

Les produits phytosanitaires

Promouvoir l'utilisation de méthodes de lutte modernes, sûres et efficaces contres les organismes nuisibles.

La quarantaine végétale

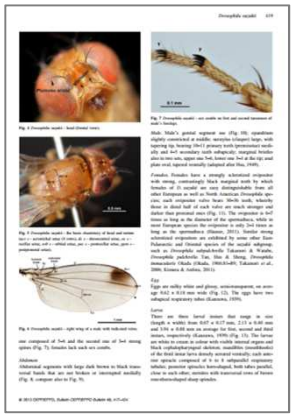
Prevenir l'introduction et la dissémination des organismes nuisibles.

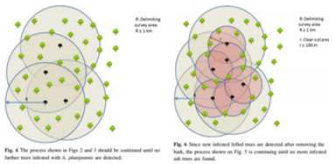
PAGE 58 — FRUITS ET LEGUMES N° 74 AVRIL 1990

L’OEPP au quotidien

Un réseau d’experts en protection des plantes (25-30 réunions d’experts, conférences et ateliers par an)
Animé par un Secrétariat (13 personnes)
Administré par un Conseil (délégués des 50 pays membres)

Production de normes OEPP (recommandations faites aux ONPVs)





Des services d’information (publications et bases de données)

MALADIES EMERGENTES: QUELQUES EXEMPLES EN EUROPE

Les maladies émergentes

- Maladies dont l'incidence augmente
- Maladies dont la répartition s'accroit rapidement (dispersion naturelle, introduction accidentelle)
- Nouvelles espèces de pathogènes décrites par la science

L'impact peut être sévère

Zebra chip ('*Candidatus* Liberibacter solanacearum') au Texas (US). Estimations pour 2005 et 2006 :

- Environ 35-40% des exploitations de pommes de terre affectées.

- Pertes économiques 2 000 000 dollars.

Economic Impacts of Zebra Chip on the Texas Potato Industry December 21, 2006
http://cnas.tamu.edu/Zebra%20Chip%20Impacts%20Final.pdf

Quelques exemples d'introductions ou d'incursions en Europe

Acidovorax citrulli **(bactériose)**	Pastèques, melons	Absent en FR (incursions en IT, GR, HU, RS, TR)	
Anthonomus eugenii **(charançon)**	Poivron	Absent en FR (NL : éradiqué – IT : éradication en cours)	
'Candidatus **Liberibacter solanacearum' (bactériose)**	Carotte, céleri, pomme de terre (?)	Trouvé en 2012 en FR (2 parcelles de carotte, région centre) ES, FI, NO, SE	
Syndrome des basses richesses ***'Candidatus*** **Arsenophonus phytopathogenicus' &** ***Pentastiridius leporinus***	Betterave sucrière	FR, DE	
Epitrix **spp. (altises)**	Pomme de terre	Absent en FR ES, PT	
Fusarium oxysporum **f.sp.** ***lactucae***	Laitue	IT, PT	

Quelques exemples d'introductions ou d'incursions en Europe

Halyomorpha halys **(punaise)**	Polyphage	Trouvée en 2012 en Alsace (FR), CH, DE, GR, HU, IT	
Hosta virus X	Hosta	CZ, FI, FR, IT, NL, PL	
Iris yellow spot virus	Oignon, poireaux …	Sporadique (AT, BH, FR, DE, GR, IT, NL, SI, ES, GB)	
Monosporascus cannonballus **(et autres champignons,** ***Acremonium*****)**	Melon, pastèque	IT, ES …	
Meloidogyne enterolobii, Meloidogyne ethiopica **(nématodes à galles)**	Polyphage	Absents en FR (incursion de *M. enterolobii* à Concarneau – pas retrouvé depuis 2010)	
Peronospora belbahrii **(mildiou)**	Basilic	Dispersion rapide (BE, CH, CY, CZ, DE, FR, GB, HU, IT)	

… et bien d'autres …

Pepino mosaic virus	Tomate	Trouvé dans les années 2000 (plus de 15 pays européens)	
Plasmopara obducens	Impatiens	Plus de 15 pays	
Tomato chlorosis virus & Tomato infectious chlorosis virus	Tomate	Présents localement en FR depuis les années 2000	
Tomato torrado virus	Tomate	Incursions (BE, ES, FR, HU, IT, PL)	
Tomato yellow leaf curl New Delhi virus	Courgette	ES	
Tuta absoluta **(mineuse)**	Tomate	Trouvée en 2008 en FR (plus de 25 pays européens)	

Un problème mondial… qui ne de date pas d'hier

XIX Siècle

L'émergence du **mildiou de la pomme de terre** en Irlande a eu des conséquences catastrophiques.

Famine des années 1840, mort de plus d'un million d'irlandais et émigration d'un million et demi de personnes.

THE EMBARKATION, WATERLOO DOCKS LIVERPOOL

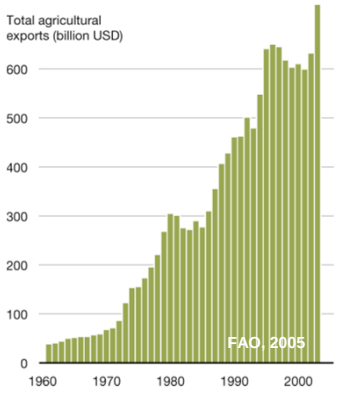
THE FAMINE IN IRELAND.— FUNERAL AT SKIBEREEN— FROM A SKETCH BY MR. H. SMITH, CORK.

Causes des émergences

- Intensification et diversification des échanges commerciaux de produits agricoles (introductions involontaires)
- Modifications de l'environnement (changements climatiques, modifications des pratiques culturales)
- Progrès de la science (détection et identification de nouveaux pathogènes) …

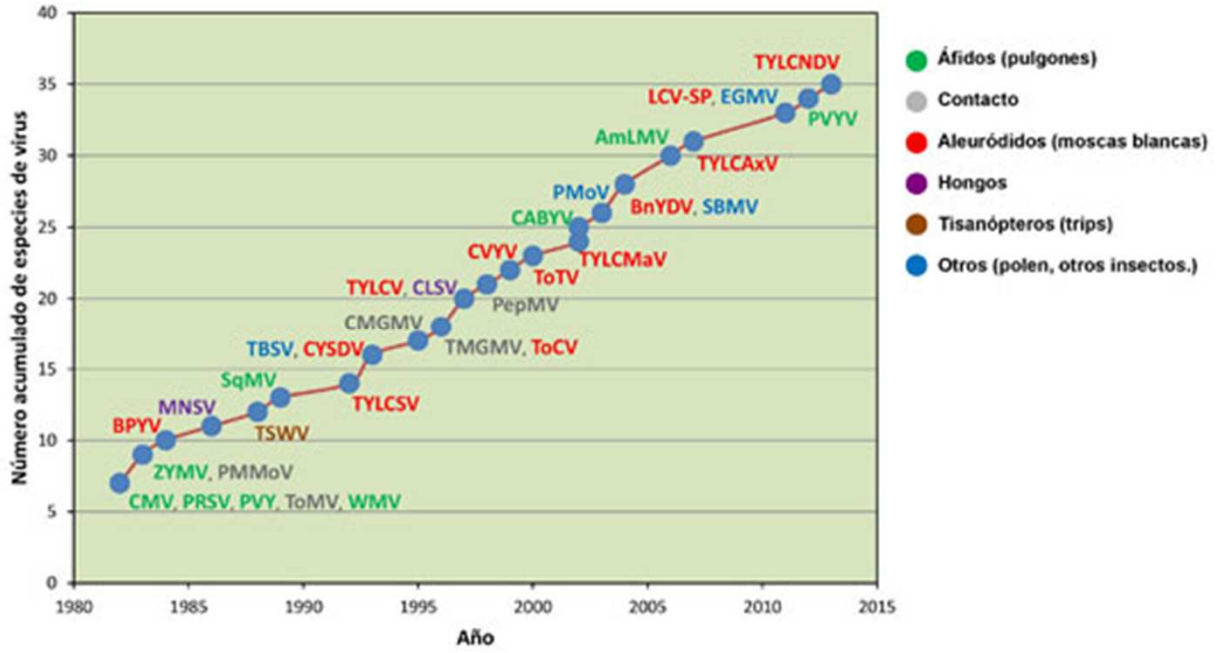
Multiples, complexes et mal connues

Intensification et diversification des échanges commerciaux de végétaux et produits végétaux



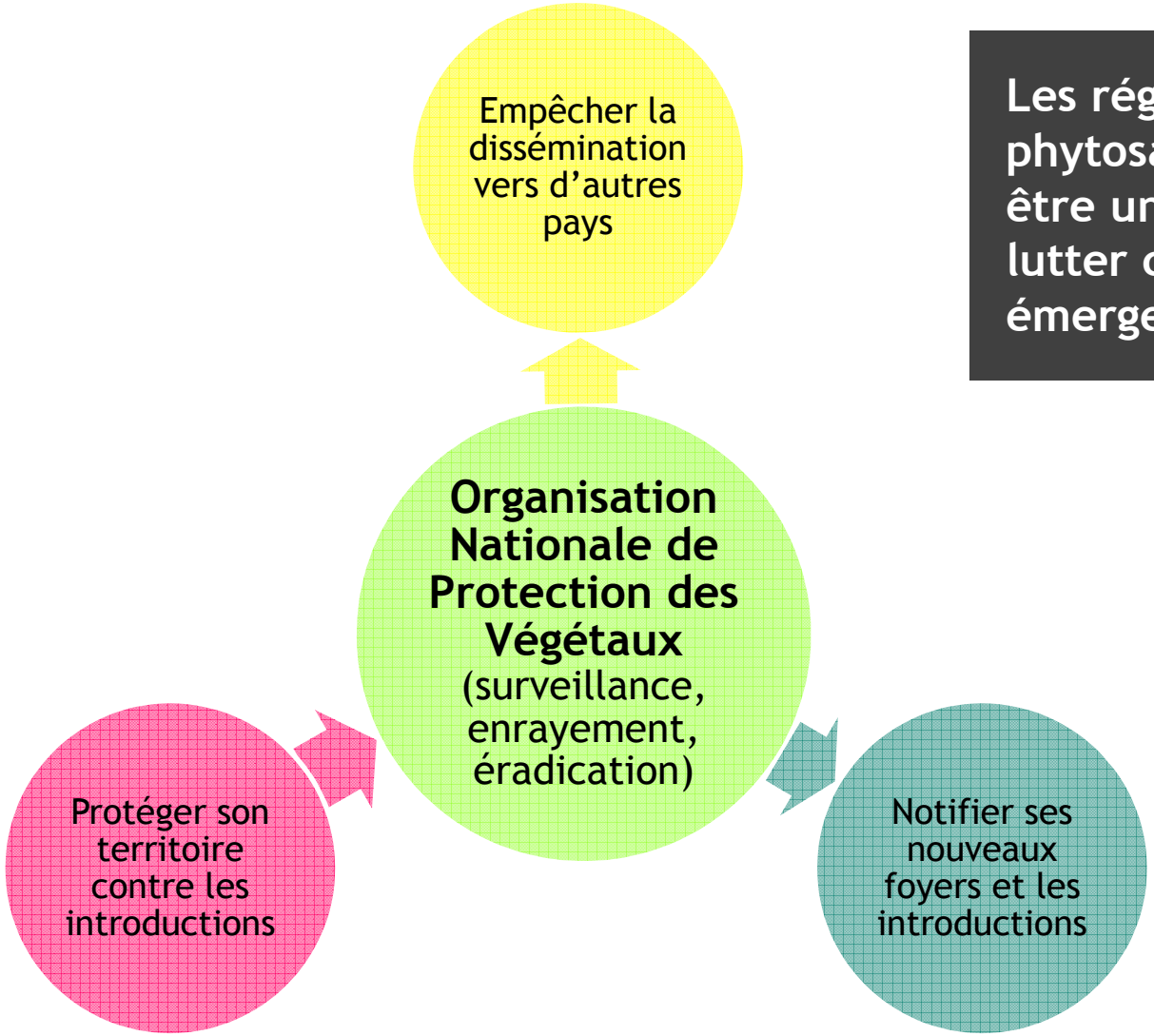
Accroissement des introductions accidentelles

Virus des cultures légumières (Espagne)



Los virus en los cultivos hortícolas protegidos del sureste español desde una perspectiva histórica by Leonardo Velasco Arjone (2015-02-21)
https://www.interempresas.net/Horticola/Articulos/133293-virus-en-cultivos-horticolas-protegidos-del-sureste-espanol-desde-perspectiva-historica.html

Obligations en matière de santé des végétaux



Les réglementations phytosanitaires peuvent être un des outils pour lutter contre les maladies émergentes

DETECTION ET SUIVI DES EMERGENCES

Détecter et suivre les émergences

Un préalable: connaître les maladies existantes

surveillance générale du territoire: une des missions importantes des services officiels de protection des végétaux effectuée en collaboration avec les professionnels

Les contrôles à l'importation (notifications d'interceptions)

Les interceptions peuvent fournir des données intéressantes sur les émergences (actuelles ou futures)

L'OEPP publie les interceptions de ses pays membres dans le Service d'Information OEPP

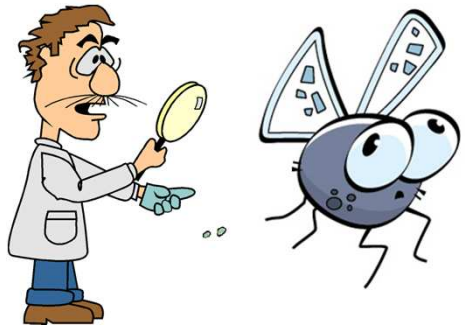
La Commission de l'UE gère une base de données EUROPHYT sur les interceptions des états membres


EUROPEAN COMMUNITY

NOTIFICATION OF INTERCEPTION OF A CONSIGNMENT FROM A THIRD COUNTRY

L’importance d’un diagnostic fiable

- Il faut disposer d’experts capables d’identifier les espèces émergentes (attention au maintien des connaissances en taxonomie, à la conservation des collections!)
- Il peut être extrêmement difficile de déterminer la cause d’un nouveau problème phytosanitaire
- La mise au point d’outils de diagnostic peut nécessiter de longues recherches

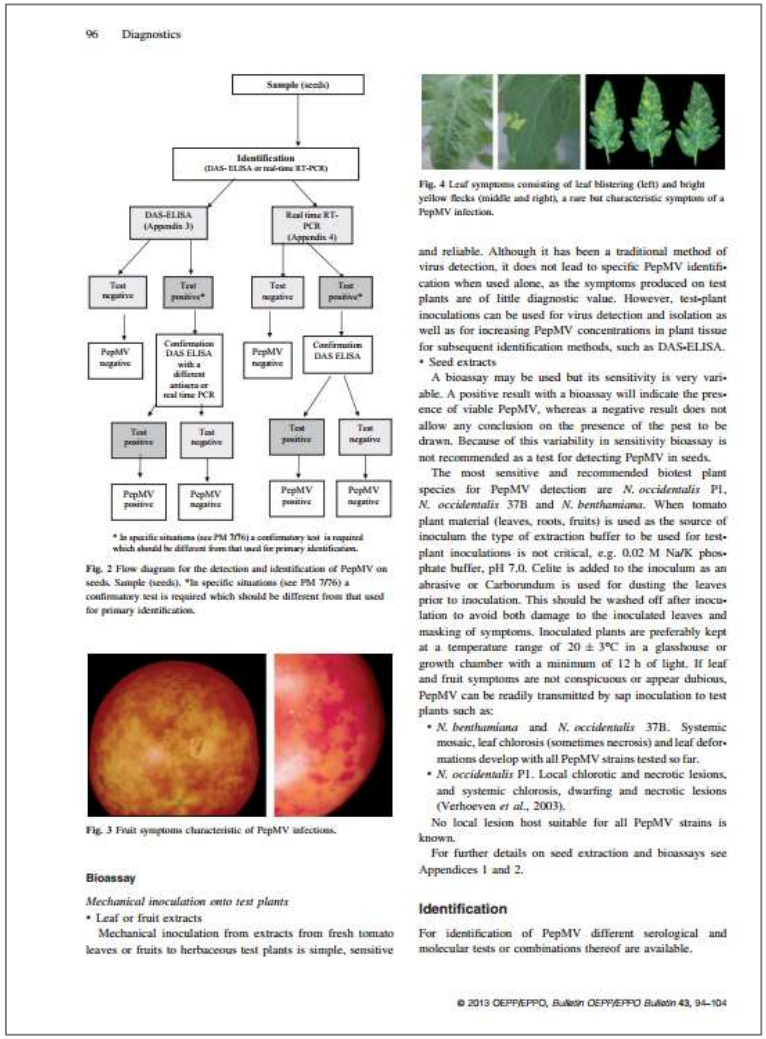


Protocoles OEPP de diagnostic harmonisés

Pour les organismes réglementés (certains sont des émergents):

Drosophila suzukii
Epitrix spp.
Meloidogyne enterolobii
Pepino mosaic virus
Tetranychus evansi
Tomato chlorosis virus & Tomato infectious chlorosis virus

et d'autres en préparation ...



96 Diagnostics

* In specific situations (see PM 7/76) a confirmatory test is required which should be different from that used for primary identification.

Fig. 2 Flow diagram for the detection and identification of PepMV on seeds. Sample (seeds). *In specific situations (see PM 7/76) a confirmatory test is required which should be different from that used for primary identification.

Fig. 3 Fruit symptoms characteristic of PepMV infections.

Bioassay

Mechanical inoculation onto test plants

• Leaf or fruit extracts

Mechanical inoculation from extracts from fresh tomato leaves or fruits to herbaceous test plants is simple, sensitive and reliable. Although it has been a traditional method of virus detection, it does not lead to specific PepMV identification when used alone, as the symptoms produced on test plants are of little diagnostic value. However, test-plant inoculations can be used for virus detection and isolation as well as for increasing PepMV concentrations in plant tissue for subsequent identification methods, such as DAS-ELISA.

• Seed extracts

A bioassay may be used but its sensitivity is very variable. A positive result with a bioassay will indicate the presence of viable PepMV, whereas a negative result does not allow any conclusion on the presence of the pest to be drawn. Because of this variability in sensitivity bioassay is not recommended as a test for detecting PepMV in seeds.

The most sensitive and recommended biotest plant species for PepMV detection are *N. occidentalis* P1, *N. occidentalis* 37B and *N. benthamiana*. When tomato plant material (leaves, roots, fruits) is used as the source of inoculum the type of extraction buffer to be used for test-plant inoculations is not critical, e.g. 0.02 M Na/K phosphate buffer, pH 7.0. Celite is added to the inoculum as an abrasive or Carborundum is used for dusting the leaves prior to inoculation. This should be washed off after inoculation to avoid both damage to the inoculated leaves and masking of symptoms. Inoculated plants are preferably kept at a temperature range of 20 ± 3°C in a glasshouse or growth chamber with a minimum of 12 h of light. If leaf and fruit symptoms are not conspicuous or appear dubious, PepMV can be readily transmitted by sap inoculation to test plants such as:

• *N. benthamiana* and *N. occidentalis* 37B. Systemic mosaic, leaf chlorosis (sometimes necrosis) and leaf deformations develop with all PepMV strains tested so far.

• *N. occidentalis* P1. Local chlorotic and necrotic lesions, and systemic chlorosis, dwarfing and necrotic lesions (Verhoeven *et al.*, 2003).

No local lesion host suitable for all PepMV strains is known.

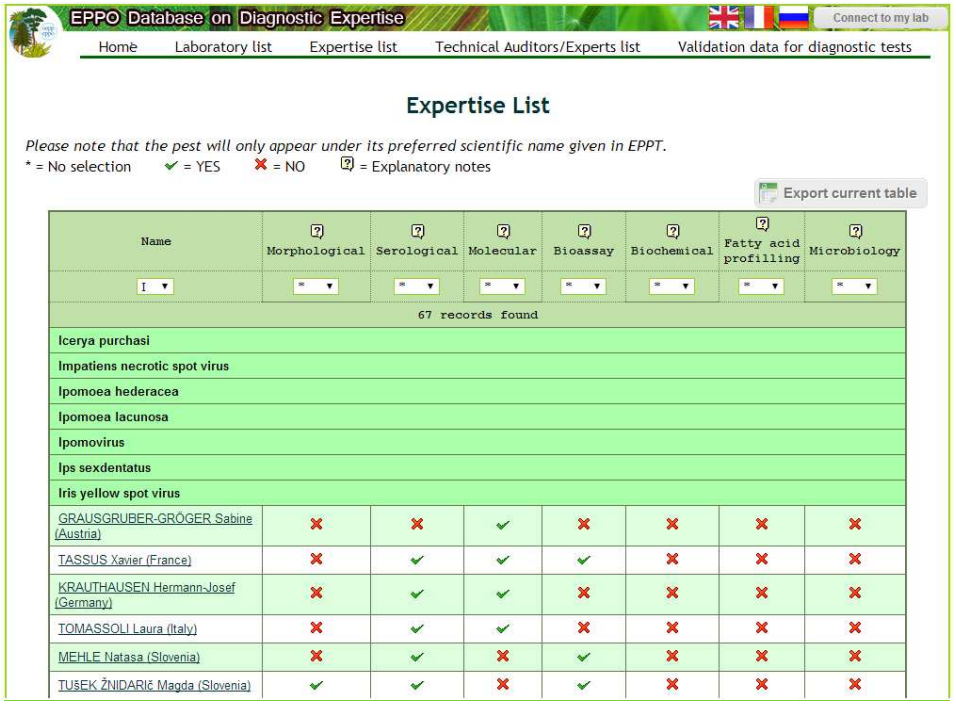
For further details on seed extraction and bioassays see Appendices 1 and 2.

Identification

For identification of PepMV different serological and molecular tests or combinations thereof are available.

Fig. 4 Leaf symptoms consisting of leaf blistering (left) and bright yellow flecks (middle and right), a rare but characteristic symptom of a PepMV infection.

Base de données OEPP ‘diagnostic expertise’


EPPO Database on Diagnostic Expertise

Connect to my lab

Home | Laboratory list | Expertise list | Technical Auditors/Experts list | Validation data for diagnostic tests

Expertise List

Please note that the pest will only appear under its preferred scientific name given in EPPT.

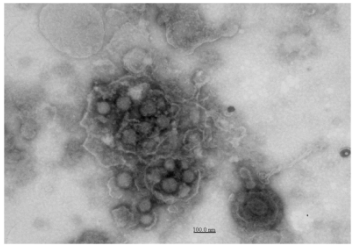
* = No selection ✔ = YES ✖ = NO ? = Explanatory notes

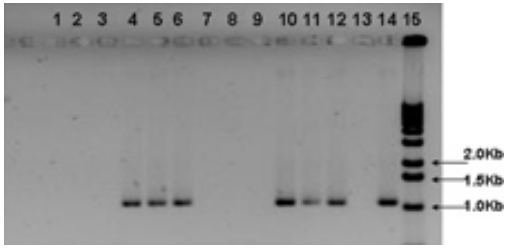
Export current table

Name	Morphological	Serological	Molecular	Bioassay	Biochemical	Fatty acid profilling	Microbiology
I	*	*	*	*	*	*	*
67 records found							
Icerya purchasi							
Impatiens necrotic spot virus							
Ipomoea hederacea							
Ipomoea lacunosa							
Ipomovirus							
Ips sexdentatus							
Iris yellow spot virus							
GRAUSGRUBER-GRÖGER Sabine (Austria)	✖	✖	✔	✖	✖	✖	✖
TASSUS Xavier (France)	✖	✔	✔	✔	✖	✖	✖
KRAUTHAUSEN Hermann-Josef (Germany)	✖	✔	✔	✖	✖	✖	✖
TOMASSOLI Laura (Italy)	✖	✔	✔	✖	✖	✖	✖
MEHLE Natasa (Slovenia)	✖	✔	✖	✔	✖	✖	✖
TUŠEK ŽNIDARIČ Magda (Slovenia)	✔	✔	✖	✔	✖	✖	✖

Les laboratoires de la région OEPP déclarent dans cette base leur expertise (organismes visés et méthodes utilisées).

http://dc.eppo.int





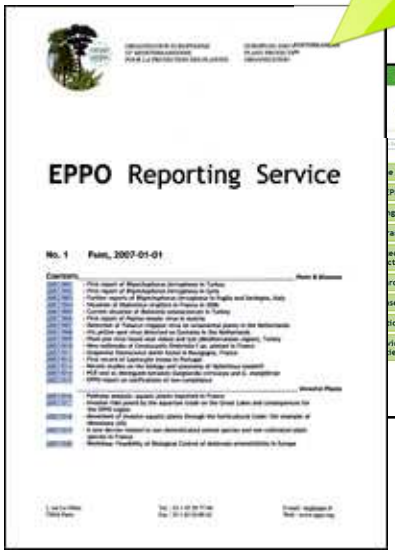


ALERTE PRÉCOCE

Collecte et diffusion des informations à l'OEPP

Signalements Officiels des Organisations Nationales de Protection des Végétaux

Littérature, Internet



Base de données

Liste d'Alerte OEPP

- Initiée en 1999
- Fournit une alerte précoce
- Propose des candidats pour l'Analyse du Risque Phytosanitaire


European and Mediterranean Plant Protection Organization
Organisation Européenne et Méditerranéenne pour la Protection des Plantes

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Worldwide activities

EPPO Alert List

(last updated in 2010-03)

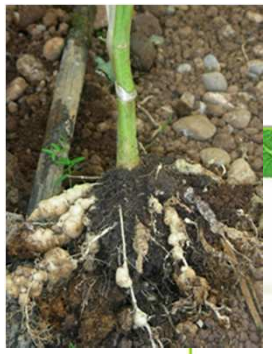
The purpose of the Alert List is to draw the attention of EPPO member countries to certain pests possibly presenting a risk to them and achieve early warning. Pests are marked with an asterisk* in the Table below when PRAs are planned or under development within EPPO. The entry date corresponds to the date when the pest was added to the Alert List.

Read a short introduction on the purpose and maintenance of the EPPO Alert List.

Pest Names	Main host plants or habitats	PRA	Entry date
Insects and mites			
Agrilus anxius (Coleoptera: Buprestidae)	*Betula*	*	2010-02
Bactrocera invadens (Diptera: Tephritidae)	Wide range of fruit crops (e.g. *Citrus*, *Lycopersicon*, *Mangifera*, *Psidium*)	*	2005-06
Diaphania perspectalis (Lepidoptera: Pyralidae)	*Buxus*		2007-11
Diocalandra frumenti (Coleoptera: Curculionidae)	Palmae	*	2003-05
Drosophila suzukii (Diptera: Drosophilidae)	Polyphagous (fruit crops)	*	2010-01

- Revue par les groupes d'experts OEPP
- En libre accès sur Internet: **www.eppo.org/QUARANTINE/Alert_List/alert_list.htm**

Contenu de la Liste d'Alerte OEPP



Informations sur:

- répartition
- plantes hôtes
- biologie
- dégâts
- dissémination
- filières
- risques potentiels

European and Mediterranean Plant Protection Organization
Organisation Européenne et Méditerranéenne pour la Protection des Plantes

Meloidogyne ethiopica

Root-knot nematode

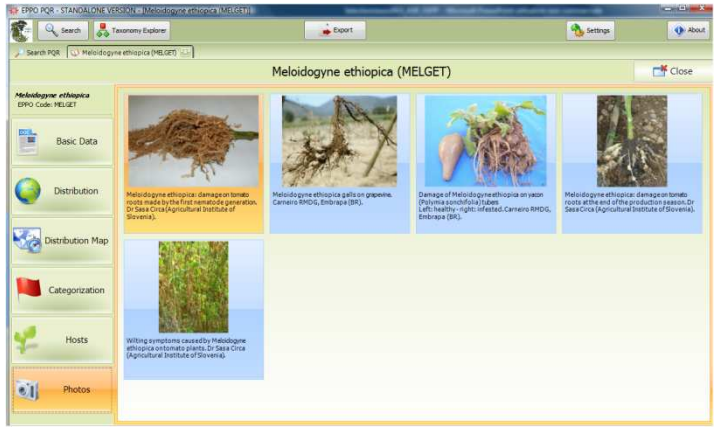
Why: In 2003, a tropical root-knot nematode species *Meloidogyne ethiopica* was found for the first time in a tomato greenhouse in Slovenia. This was also the first record for Europe. In 2009, it was also detected in Greece and Turkey. *M. ethiopica* is considered as a damaging species as it can multiply on many different types of plants (dicotyledons and monocotyledons). In addition, it has been shown that this tropical species has the ability to survive outdoors in temperate areas. The Panel on Quarantine Nematodes recommended that *M. ethiopica* should be added to the EPPO Alert List.

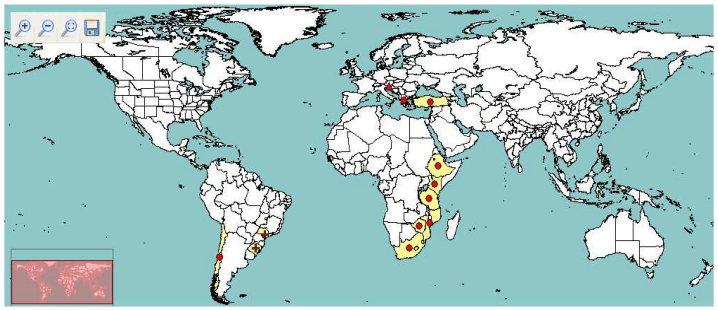
Damage on tomato roots made by the 1st generation
Courtesy: Dr S. Širca (Agricultural Institute of Slovenia)

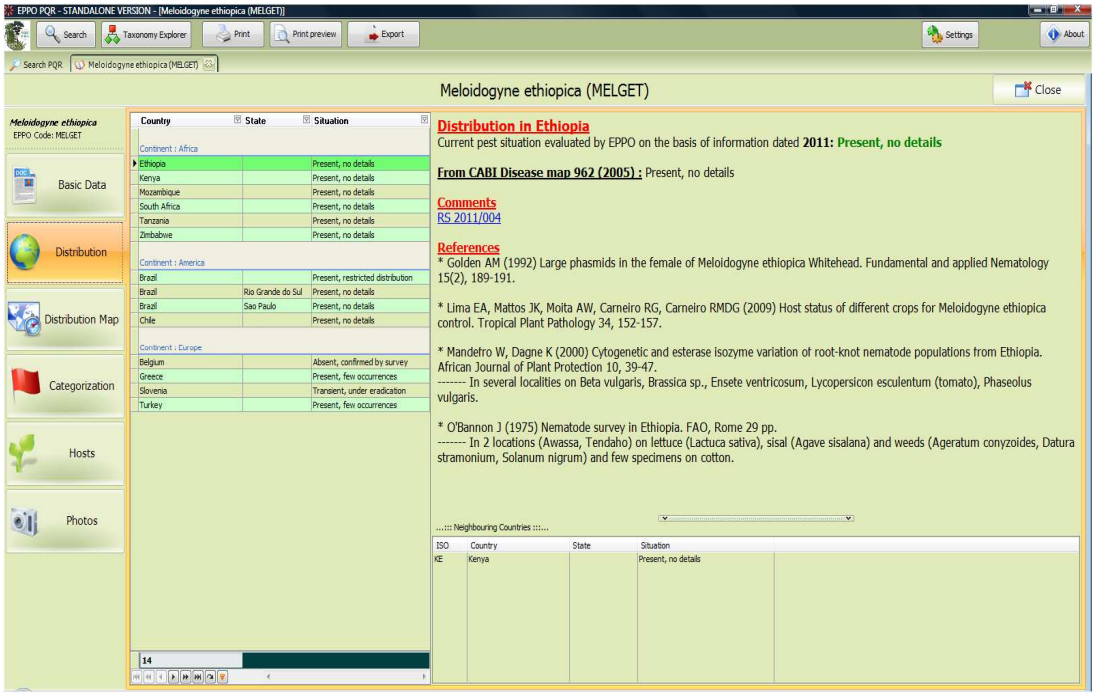
Where: *M. ethiopica* is a tropical root-knot species which was first described in 1968 in Southern Africa (Tanzania).
EPPO region: Greece, Slovenia (not established), Turkey. In Slovenia, it was reported once in 2003 near the village of Dornberk on greenhouse tomatoes. The origin of this nematode in Slovenia remains unknown because the infected tomato plants had not been imported from abroad. The pest is not considered as established in Slovenia, as the infested tomato crop was destroyed and the pest was not detected again. In 2009, *M. ethiopica* was detected 2 soil samples which had been collected from maize (*Zea mays*) and kiwifruit (*Actinidia deliciosa*) crops near Kavalla, Northern Greece. The situation of this nematode in Greece would need to be further investigated. In 2009, it was also detected in Turkey in 2 tomato greenhouses of the University of Ondokuz Mayıs (Samsun) and in several commercial cucumber greenhouses in Çarşamba district (Samsun province).
Africa: Ethiopia, Kenya, Mozambique, South Africa, Tanzania, Zimbabwe.
South America: Brazil (Distrito Federal, Rio Grande do Sul, Sao Paulo), Chile (detected in the Central Valley from Copiapo (north of Santiago) to Talca).

Stockage des données dans PQR

Base de données sur les organismes réglementés (et sur un certain nombre d'émergents)







Installation gratuite:
www.eppo.int/DATABASES/pqr/pqr.htm

EPPO Global Database

Search by name or EPPO code... Go!

advanced search...

Login

Register

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http://gd.eppo.int

Meloidogyne ethiopica (MELGET)

MENU

- Overview →
- Distribution
- Host plants
- Categorization
- Reporting
- Photos

Overview

Basic information

- **EPPO code:** MELGET
- **Preferred name:** Meloidogyne ethiopica
- **Authority:** Whitehead

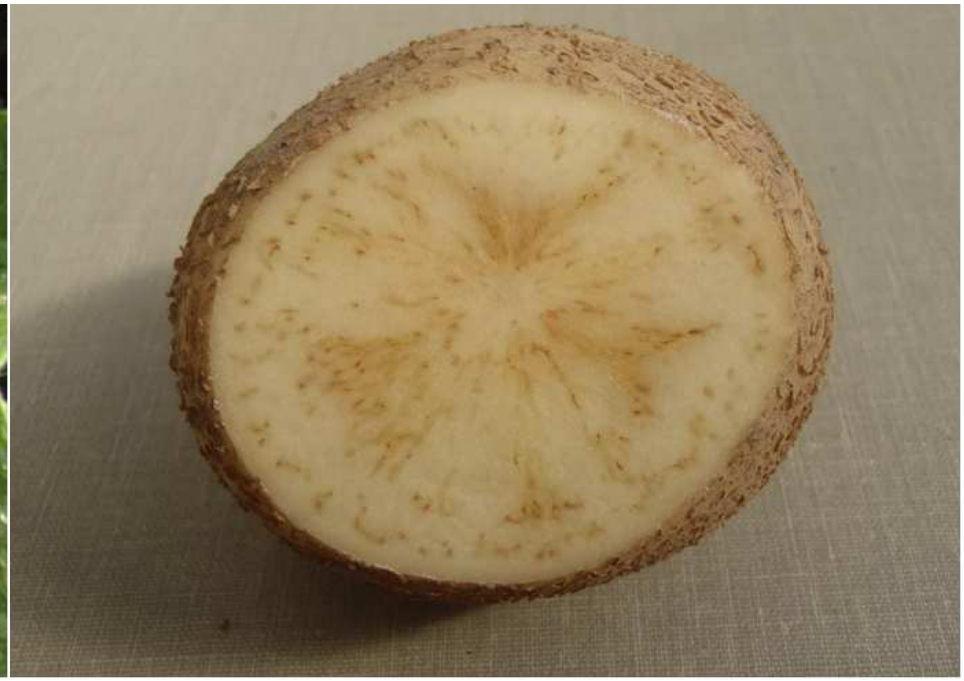
more photos...

Common names

Name	Language
Search...	- select -
root-knot nematode	English

Taxonomy

Kingdom	Animalia (1ANIMK)
Phylum	Nematoda (1NEMAP)
Class	Secrementea (1SECEC)
Order	Tylenchida (1TYLNO)
Family	Meloidogynidae (1MELGF)
Genus	Meloidogyne (1MELGG)
Species	Meloidogyne ethiopica (MELGET)



ANALYSE DU RISQUE PHYTOSANITAIRE (ARP)

Définition de l'Analyse du Risque Phytosanitaire (ARP)

Processus consistant à évaluer les données biologiques, ou autres données scientifiques ou économiques, pour déterminer si un organisme est nuisible, s'il devrait être réglementé, et la sévérité des mesures phytosanitaires éventuelles à prendre à son égard.

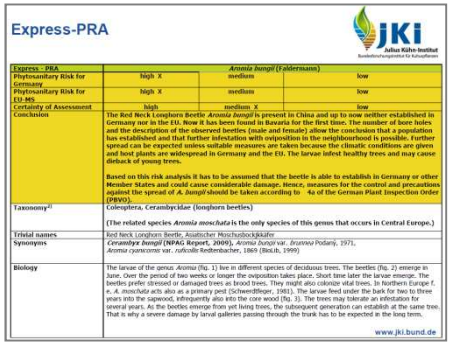
Définition FAO (NIMP 5 – Glossaire des termes phytosanitaires).

‘Check-list’ pour l’analyse du risque

- Identité de l’organisme nuisible
- Caractéristiques biologiques
- Répartition géographique
- Plantes-hôtes
- Potentiel d’introduction et d’établissement
- Méthodes de lutte
- Moyens de dissémination et de transport
- Impacts sociaux-économiques

Qui fait des ARP en Europe?

- Les pays (niveau national)


Express-PRA

JKI Julius Kühn-Institut

Express - PRA	*Aromia bungii* (Faldermann)		
Phytosanitary Risk for Germany	high X	medium	low
Phytosanitary Risk for EU-MS	high X	medium	low
Certainty of Assessment	high	medium X	low
Conclusion	The Red Neck Longhorn Beetle *Aromia bungii* is present in China and up to now neither established in Germany nor in the EU. Now it has been found in Bavaria for the first time. The number of bore holes and the description of the observed beetles (male and female) allow the conclusion that a population has established and that further infestation with oviposition in the neighbourhood is possible. Further spread can be expected unless suitable measures are taken because the climatic conditions are given and host plants are widespread in Germany and the EU. The larvae infest healthy trees and may cause dieback of young trees. Based on this risk analysis it has to be assumed that the beetle is able to establish in Germany or other Member States and could cause considerable damage. Hence, measures for the control and precautions against the spread of *A. bungii* should be taken according to 4a of the German Plant Inspection Order (PflVO).		
Taxonomy[2]	Coleoptera, Cerambycidae (longhorn beetles) (The related species *Aromia moschata* is the only species of this genus that occurs in Central Europe.)		
Trivial names	Red Neck Longhorn Beetle, Asiatischer Moschusbockkäfer		
Synonyms	*Cerambyx bungii* (NPAG Report, 2009), *Aromia bungii* var. *brunnea* Podanÿ, 1971, *Aromia cyanicorne* var. *ruficolli* Redtenbacher, 1869 (Bouïs, 1999)		
Biology	The larvae of the genus *Aromia* (fig. 1) live in different species of deciduous trees. The beetles (fig. 2) emerge in June. Over the period of two weeks or longer the oviposition takes place. Short time later the larvae emerge. The beetles prefer stressed or damaged trees as brood trees. They might also colonize vital trees. In Northern Europe f. e. *A. moschata* acts also as a primary pest (Schwerdtfeger, 1981). The larvae feed under the bark for two to three years into the sapwood, infrequently also into the core wood (fig. 3). The trees may tolerate an infestation for several years. As the beetles emerge from yet living trees, the subsequent generation can establish at the same tree. That is why a severe damage by larval galleries passing through the trunk has to be expected in the long term.		

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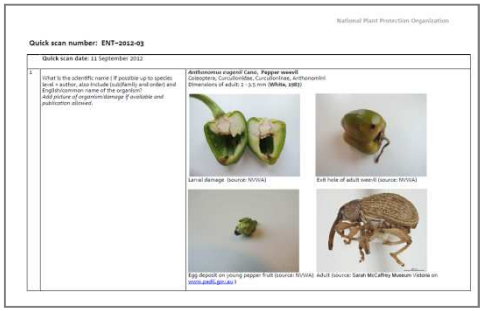
anses

Avis de l'Anses
Saisine n° « 2012-SA-0163 »

Forest Research — Rapid Pest Risk Analysis

Rapid assessment of the need for a detailed Pest Risk Analysis for Monterey pine aphid, *Essigella californica*

Disclaimer: This document provides a rapid assessment of the risks posed by the pest to the UK in order to assist Risk Managers decide on a response to a new or revised pest threat. It does not constitute a detailed Pest Risk Analysis (PRA) but includes advice on whether it would be helpful to develop such a PRA and, if so, whether the PRA area should be the UK or the EU and whether to use the UK or the EPPO PRA scheme.


National Plant Protection Organization

Quick scan number: ENT-2012-03

Quick scan date: 11 September 2012

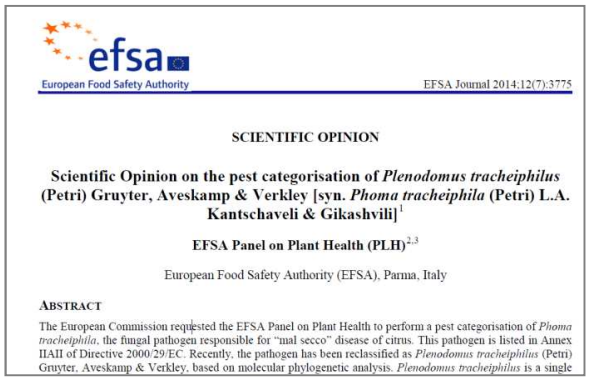
1 What is the scientific name (If possible up to species level + author, also include (subfamily and order) and English/common name of the organism?
Add picture of organism/damage if available and authorities allowed.

Anthonomus eugenii Cano, Pepper weevil
Coleoptera, Curculionidae, Curculioninae, Anthonomini
Dimensions of adult: 2 - 3.5 mm (White, 1983)

Larval damage (source: NVWA) | Exit hole of adult weevil (source: NVWA)

Egg deposit on young pepper fruit (source: NVWA) | Adult (source: Sarah McCaffrey Museum Victoria on www.padil.gov.au)

- L'EFSA


efsa
European Food Safety Authority

EFSA Journal 2014;12(7):3775

SCIENTIFIC OPINION

Scientific Opinion on the pest categorisation of *Plenodomus tracheiphilus* (Petri) Gruyter, Aveskamp & Verkley [syn. *Phoma tracheiphila* (Petri) L.A. Kantschaveli & Gikashvili][1]

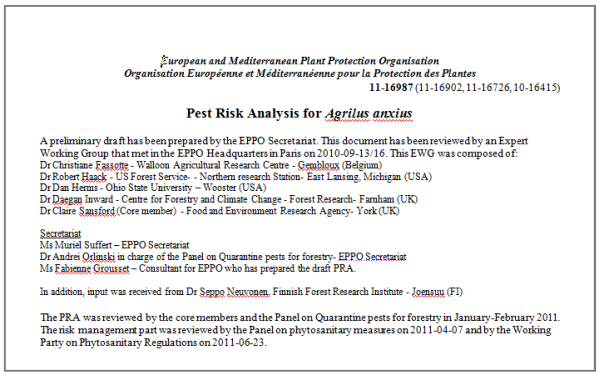
EFSA Panel on Plant Health (PLH)[2,3]

European Food Safety Authority (EFSA), Parma, Italy

ABSTRACT

The European Commission requested the EFSA Panel on Plant Health to perform a pest categorisation of *Phoma tracheiphila*, the fungal pathogen responsible for "mal secco" disease of citrus. This pathogen is listed in Annex IIAII of Directive 2000/29/EC. Recently, the pathogen has been reclassified as *Plenodomus tracheiphilus* (Petri) Gruyter, Aveskamp & Verkley, based on molecular phylogenetic analysis. *Plenodomus tracheiphilus* is a single

- OEPP


European and Mediterranean Plant Protection Organisation
Organisation Européenne et Méditerranéenne pour la Protection des Plantes
11-16987 (11-16902, 11-16726, 10-16415)

Pest Risk Analysis for *Agrilus anxius*

A preliminary draft has been prepared by the EPPO Secretariat. This document has been reviewed by an Expert Working Group that met in the EPPO Headquarters in Paris on 2010-09-13/16. This EWG was composed of:
Dr Christiane Fassotte - Walloon Agricultural Research Centre - Gembloux (Belgium)
Dr Robert Haack - US Forest Service- - Northern research Station- East Lansing, Michigan (USA)
Dr Dan Herms - Ohio State University – Wooster (USA)
Dr Dagan Inward - Centre for Forestry and Climate Change - Forest Research- Farnham (UK)
Dr Claire Sansford (Core member) - Food and Environment Research Agency- York (UK)

Secretariat
Ms Muriel Suffert – EPPO Secretariat
Dr Andrei Orlinski in charge of the Panel on Quarantine pests for forestry- EPPO Secretariat
Ms Fabienne Grousset – Consultant for EPPO who has prepared the draft PRA.

In addition, input was received from Dr Seppo Neuvonen, Finnish Forest Research Institute - Joensuu (FI)

The PRA was reviewed by the core members and the Panel on Quarantine pests for forestry in January-February 2011. The risk management part was reviewed by the Panel on phytosanitary measures on 2011-04-07 and by the Working Party on Phytosanitary Regulations on 2011-06-23.

Gestion des risques: au niveau de l'OEPP

Recommendations pour inscription sur les listes A1/A2
(organismes recommendés pour réglementation de quarantaine)

Développement de Normes OEPP

- Protocoles de diagnostic
- Plans d'urgence (planification des mesures à prendre en cas d'introduction)
- Méthodes d'inspection
- Recommandations pour la mise en oeuvre de programme d'enrayement (containment) ou d'éradication

Tout juste publiée, une étude sur la tomate (analyse pour identifier les ravageurs/maladies susceptibles d'être introduits par cette filière)
http://www.eppo.int/QUARANTINE/DT_1068_Tomato_study_MAIN_TEXT_and_ANNEXES_2015-01-26.pdf

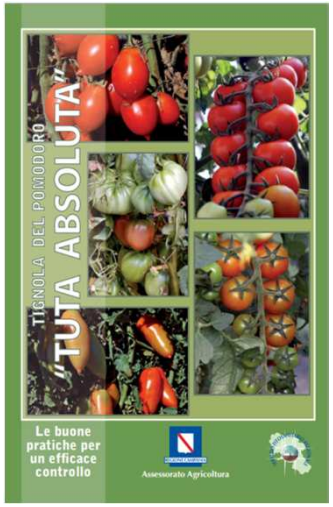
Gestion des risques: réglementation de l'Union Européenne

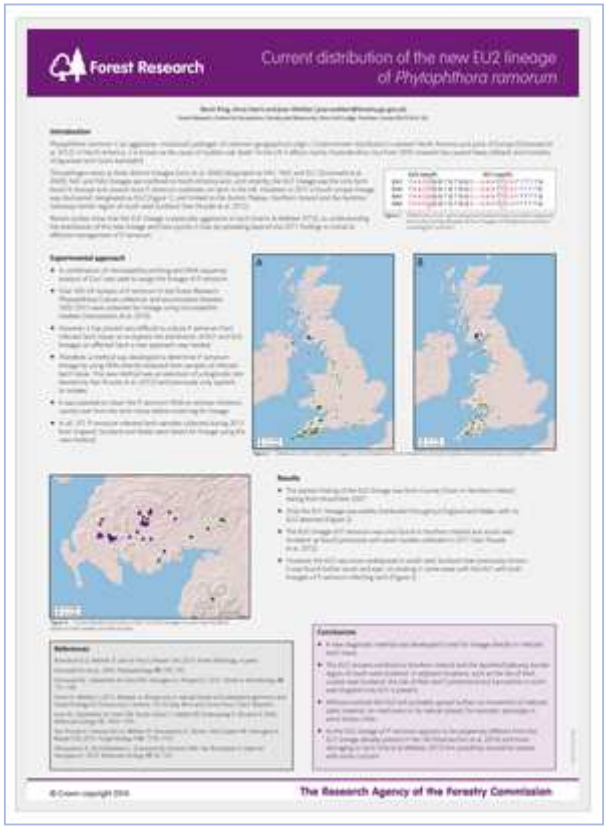
Ajouts et modifications de la réglementation phytosanitaire (Directive 2000/29)

Application de mesures d'urgence spécifiques (enquêtes obligatoires, mesures sur les mouvements/commerce des végétaux, mesures d'enrayement ou d'éradication)

- *Thrips palmi* / Thaïlande (Decision 98/109/EC)
- *Pepino mosaic virus* (Decision 2004/200/EC)
- *Potato spindle tuber viroid* (Decision 2007/410/EC)
- *Pomacea* (Decision 2012/697/EU)
- *Epitrix* spp. (Decision 2012/270/EU)
- Certains fruits et légumes / Inde (Decision 2014/237/EU)

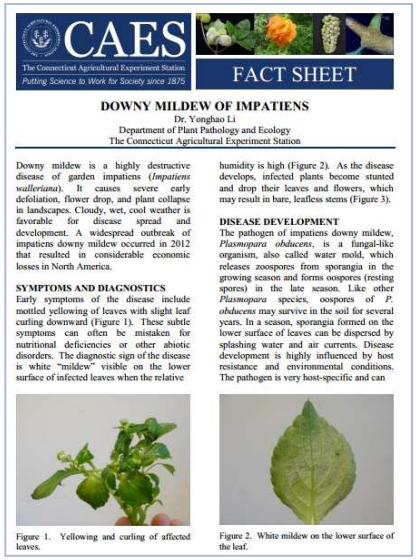
La mise en oeuvre des mesures au niveau national





MALADIES EMERGENTES: COMMUNICATION

La communication: un élément important dans la gestion des émergences pour mobiliser les différents acteurs



Communiquer, informer les passagers internationaux…

Conclusions

- L'émergence de nouvelles maladies ayant un caractère invasif peut avoir des conséquences désastreuses sur les cultures
- Il est essentiel d'en évaluer les risques potentiels le plus tôt possible (Analyse du Risque et Alerte précoce)
- Les mesures réglementaires de quarantaine peuvent être appropriées pour prévenir ou endiguer ces émergences
- La quarantaine végétale doit s'appuyer sur une recherche efficace et ambitieuse (étiologie, taxonomie, biologie, épidémiologie, diagnostic)
- La gestion des émergences repose sur la participation active de nombreux acteurs au niveau national et international (autorités officielles, chercheurs, producteurs, commerce, citoyens) et passe par une communication efficace


Merci de votre attention