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93/061 INTERCEPTIONS...Interception reports

Eight countries are now sending their notifications of interceptions directly to EPPO. This report comprises the notifications as they were received by EPPO during 1993-02/03.

Austria: In 1993-02 two consignments were intercepted by Austrian authorities of which one consignment (oranges) was infested by Ceratitis capitata (EPPO A2 quarantine pest) and originated from Spain.

Cyprus: During the first two months of 1993 four consignments were intercepted in Cyprus. None of the interceptions were caused by quarantine pests.

Denmark: During the year 1992 17 interceptions took place in Denmark. Three interceptions were consignments of Dahlia tubers from The Netherlands infested by tomato spotted wilt tospovirus (potential EPPO A2 quarantine pest), two consignments of Dendranthema from Costa Rica and one of Nerium oleander from Israel were infested by Frankliniella occidentalis (EPPO A2 quarantine pest), three consignments from Germany and two from The Netherlands of Euphorbia pulcherrima were intercepted due to the infestation by Bemisia tabaci (EPPO A2 quarantine pest), five interceptions of Rosa plants from Poland were the result of an infestation by Meloidogyne sp. and one consignment of Quercus robur seeds from the USA was infested by Curculio sp.

Finland: During 1993-02/03 Finnish authorities intercepted 24 consignments. Five of the 24 intercepted consignments were infested by EPPO quarantine pests and originated from the Netherlands; being ornamental pot plants and cut flowers and infested by F. occidentalis (4 consignments) and Liriomyza trifolii (EPPO A2 quarantine pest) (1 consignment), respectively.

France: The EPPO Secretariat was notified that French authorities intercepted a consignment of lucerne seeds from the USA due to an infection by Clavibacter michiganensis subsp. insidiosus (EPPO A2 quarantine pest).

Germany: In 1992-12 and 1993-01 Germany intercepted four consignments of which three (chrysanthemum and Gypsophila cutflowers) originated from Israel and were infested by Liriomyza sp.



EPPO *Reporting Service*

93/062

**BTNYVX/GB...Update on the Rhizomania situation in the EC
(United Kingdom)**

It was reported at the International Symposium on Plant Health and the European Single Market in Reading (UK) that during 1992 13 new outbreaks of rhizomania caused by beet necrotic yellow vein furovirus (EPPO A2 quarantine pest) have occurred in eastern England. Studies from outbreaks in 1989 resulted in a decrease of root weight and sugar yield of sugar beets by 42% and 44%, respectively.

Source: Asher, M.J.; Henry, C.M. (1993) Research to contain beet rhizomania in the UK.
Presentation at the International Symposium on Plant Health and the European Single Market, Reading (UK) 1993-03/04-30/1



EPPO *Reporting Service*

93/063

PNNRSX/PNDXXX...Prunus necrotic ring spot ilarvirus and
prune dwarf ilarvirus in US germplasm collection

It was reported at the 1992 APS/MPS Annual Meeting of the American Phytopathological Society that the National Germplasm Repository - Davis Prunus collection had been tested for the infection by prunus necrotic ring spot ilarvirus (PRNSV) and prune dwarf ilarvirus (PDV). Of the approximately 1600 plants of the collection 345 tested positive by ELISA. Two hundred plants were infected by PNRSV, 33 by PDV and 112 were infected by both viruses. The collection will be tested every year for virus infections. Accessions taken from the collection and tested positive will undergo heat treatments to produce virus-free material.

Source:

Lile, L.S.; Rigert, K.S. (1992) Levels of prunus necrotic ring spot virus and prune dwarf virus infection in the National Germplasm Repository - Davis Prunus collection.
Presentation at the 1992 APS/MPS Annual Meeting, Portland, OR, USA.
Phytopathology 82, 1173.



EPPO *Reporting Service*

93/064

POSTXX...Detection of potato spindle tuber viroid in true potato seed from China

At the Keshan Potato Research Institute, China, potato breeding material was investigated by return-polyacrylamide gel electrophoresis (R-PAGE) for the presence of potato spindle tuber viroid (EPPO A2 pest). Over 1700 true potato seeds were tested. Of the 46 seedlots, 24 contained PSTVd. The viroid was detected in 70% of the lots from inbred lines and in 38% of the lots from outcrosses. PSTVd was also detected in true potato seeds which were stored in paper bags at room temperature since for 21 years.

Source:

Singh, R.P.; Boucher, A.; Wang, R.G. (1991) Detection, distribution and long-term persistence of potato spindle tuber viroid in true potato seed from Heilongjiang, China.
American Potato Journal 68, 65-74.



EPPO *Reporting Service*

93/065 **TMSWXX/CY...Tomato spotted wilt tospovirus present in Cyprus**

EPPO has been informed by the Ministry of Agriculture and Natural Resources of Cyprus that tomato spotted wilt tospovirus (potential A2 quarantine pest) and zucchini yellow mosaic virus are occurring in Cyprus causing severe losses on lettuce and watermelon, respectively.

Source: **Ministry of Agriculture and Natural Resources, Nicosia (1993-02)**

93/066 **TMSWXX/CZ...Tomato spotted wilt tospovirus present in the Czech Republic.**

The Central Control and Testing Institute for Agriculture of the Czech Republic has informed EPPO that tomato spotted wilt tospovirus (potential A2 quarantine pest) has been found in the Czech Republic. As a result of an extensive survey for tomato spotted wilt tospovirus within country, 15 localities within three Czech regions were found to be infested by the virus. The virus was found in vegetables, weeds and ornamentals. Tomato spotted wilt tospovirus has been added onto the list of quarantine pests for the Czech Republic.

EPPO was further informed that *Phytophthora megasperma* f.sp. *glycinea*, *Liriomyza huidobrensis*, *L. sativae* and peach latent mosaic viroid do not occur in the country.

Source: **Central Control and Testing Institute for Agriculture, Praha (1992-12)**



EPPO *Reporting Service*

93/067 CSGXXX...Citrus greening bacterium present in Tanzania

Citrus greening bacterium (EPPO A1 pest) as well as its African vector *Trioza erytreae* (EPPO A1 pest) are present in Tanzania. The areas of the disease spread can be divided into four zones:

Zone A: This zone includes the highlands with > 1200 m elevation. Citrus greening bacterium and the vector are widespread and occur in high populations.

Zone B: (800-1200 m elevation) Very high vector populations occur in this zone, but disease intensity is only moderate.

Zone C: (500-800 m elevation) This zone is characterized by a low vector population and disease intensity level.

Zone D: (< 400 m elevation) Vector and disease are absent from these areas.

Source: Evers, G.; Grisoni, M. (1991) Present situation of the citrus greening disease in Tanzania and proposal for control strategies. *Fruits (Paris)* 46, 171-177.

93/068 CSGXXX...Distribution of Citrus greening bacterium

Due to the new report of Citrus greening bacterium (EPPO A1 pest) in Tanzania the distribution of this pathogen is as follows:

EPPO distribution list: Citrus greening bacterium

EPPO region: Absent.

Africa: Comoros, Ethiopia, Kenya, Madagascar, Malawi Mauritius, Réunion, South Africa, St. Helena, Swaziland, Tanzania, Zimbabwe.

Asia: China, Hong Kong, India, Indonesia, Japan, Malaysia, Nepal, Pakistan, Philippines, Saudi Arabia, Taiwan, Thailand, Yemen.

Source: EPPO Secretariat, Paris (1993-02)



EPPO *Reporting Service*

93/069 **ERWIAM/GB...The situation of *Erwinia amylovora* in the EC**
(UK - Northern Ireland)

It was reported at the International Symposium on Plant Health and the European Single Market that Northern Ireland is considered to be free from fireblight caused by *Erwinia amylovora* (EPPO A2 quarantine pest). In 1986 *E. amylovora* was found in the Greater Belfast area. The fireblight outbreaks were confined to ornamental plants such as *Cotoneaster* and *Pyracantha*. A stringent eradication policy was carried out accompanied by surveys of the area (up to 1 km) where the outbreaks occurred. No further fireblight outbreaks occurred during recent years.

Source: McCracken, A.R. (1993) Spread, survival and eradication of fireblight in Northern Ireland.
 Poster at the International Symposium on Plant Health and the European Single Market, Reading (UK) 1993-03/04-30/1



EPPO *Reporting Service*

93/070

PSDMSO/EC...Further outbreaks of brown rot of potato
(*Pseudomonas solanacearum*) in the EC (BE, NL)

A first outbreak of brown rot of potato caused by *Pseudomonas solanacearum* (EPPO A2 quarantine pest) in the EC (UK) had been reported in EPPO Reporting Service 93/031 (1993, No. 2). More outbreaks of the bacterial disease within the EC were now reported from Belgium and The Netherlands.

In November and December 1992 *P. solanacearum* was detected in the community of Mol (BE) and its environments on some tens of ha of potatoes. Several cultivars have been found to be infected. The pathogen, however, was not found in certified seed potatoes. The exact origin of the limited contamination has not yet been discovered. Belgian authorities have placed the areas concerned under official regulation and will try to eradicate the pest.

In The Netherlands, the disease was found in September 1992 during a routine check of stored potatoes (intended for industrial processing) cv. "Russet Burbank" stored in Reusel. The lot was produced on rented land, located in Belgium, by a Dutch farmer. In December 1992, potatoes cv. "Agria" intended for industrial processing, grown at Leveroy near the Belgium border, were found to be infected with *P. solanacearum*. Official investigations made clear that the infestation resulted from seed potatoes and that uncertified material was used. Further investigations to trace back the infected seed material and to find the source of this infection are under way. To eradicate the pest the Plant Protection Service of The Netherlands has initiated an extensive control and survey programme. The potato crops found infected by *P. solanacearum* were destroyed by means of processing under the supervision of the plant protection service and the field in Leveroy where the pest was found has been placed under official notice. For the future, all potato crops in the surrounding communes of Leveroy and Reusel will be identified and mapped. Farmers intending to grow potato crops will have to notify the Plant Protection Service of the intended time of harvest and the harvest will only be allowed under official supervision. Inspections on tubers will be carried out in these areas. The total expected area surveyed in this manner will be 2000 ha. In a more extensive region along the Belgian border with an extent of 3500 ha all potato fields will be surveyed directly after harvest by inspecting waste tubers still present on the fields.

In relation to this recent findings of brown rot of potato in Belgium and The Netherlands Dutch authorities have also informed EPPO that an earlier finding of *P. solanacearum* took place in 1989. Potatoes infected with the disease were found in storage at Reusel and originated from a Dutch farmer producing this crop on rented land in Belgium. The cv. concerned was "Ottena".

Source: Belgium Plant Protection Service, Brussels (1993-03)
Ministry of Agriculture, The Netherlands (1993-03)



EPPO *Reporting Service*

93/071

CRONCL/ATRPPP...Effect of *Cronartium coleosporioides*
and *Atropellis piniphila* on physical properties of wood

Experiments were carried out in Canada to investigate if the infection of *Pinus contorta* var. *latifolia* by *Cronartium coleosporioides* (EPPO A1 pest) and *Atropellis piniphila* (EPPO A1 pest) has an influence on the physical properties of wood, such as bending strength and bending stiffness. It was found that infection by the pathogens did not affect the bending stiffness of wood, but that the bending strength was significantly decreased in wood with infections by *C. coleosporioides* or *A. piniphila*. The authors stressed that this affects the use of the wood and might decrease its value.

Source:

Nevill, R.J.; Lam, F.; Merler, H.; Borden, J.H. (1990) Effects of atropellis canker and stalactiform blister rust on the bending strength and stiffness of logdepole pine lumber.
Wood Science and Technology 24, 225-232.



EPPO *Reporting Service*

93/072

GYMNAS...Biology of *Gymnosporangium asiaticum*

Studies on biological factors in regard to infection of pears and junipers by *Gymnosporangium asiaticum* (EPPO A1 pest) were carried out in the Republic of Korea. Teliospore germination and sporidial formation were highest at temperatures of 15-20° C at a high relative humidity. Sporidia had a very low drought resistance and their germability was lost after one hour under room conditions. A minimum of 8 h leaf wetness was required for sporidia to infect pear leaves. Sporidia developed more pycnidial lesions on young leaves; older leaves were not as highly susceptible.

Source:

Lee, D.H. (1990) Studies on the several factors in relation to pear rust infection caused by *Gymnosporangium asiaticum* Miyabe et Yamada. **Korean Journal of Plant Pathology** 6, 65-72.



EPPO *Reporting Service*

93/073 **INONWE...Economic impact of *Inonotus weirii***

A study to assess the damage caused by *Inonotus weirii* (EPPO A1 pest) in douglas-fir stands was carried out in Oregon, US, during a time period of 29 years. The forest (1,1 and 0,9 ha) was regularly monitored for the presence of the fungus and the health condition of the trees. It was found that during the period of 29 years *I. weirii* accounted for 45% mortality of all fir mortality, caused a 29% decrease of the standing Douglas-fir trees and an 18% reduction in the standing volume.

Source: Lawson, T.T. (1992) Impacts from 1960 through 1989 of *Phellinus weirii* in two douglas-fir stands in Western Oregon.
Presentation at the 1992 APS/MPS Annual Meeting, Portland, OR, USA.
Phytopathology 82, 1117



EPPO Reporting Service

93/074 PUCCPZ...Puccinia pelargonii-zonalis present in India

Up to now *Puccinia pelargonii-zonalis* (EPPO A2 pest) has been reported to occur only in one Asian country (Israel). A report from India, however, states that the fungus has occurred on *Pelargonium hortorum* since 1984 in Bangalore, Karnataka. This is the first report of *P. pelargonii-zonalis* from the main Asian continent.

Source: Singh, R.; Rao, N.N.R. (1990) Occurrence of rust on florist geranium.
 Indian Phytopathology 43, 481.

93/075 PUCCPZ...Distribution of *Puccinia pelargonii-zonalis*

Due to the new report of *Puccinia pelargonii-zonalis* (EPPO A2 pest) in India the distribution of this pathogen is as follows:

EPPO distribution list: *Puccinia pelargonii-zonalis*

EPPO region: Widespread in Austria, France, Germany, Greece, Israel, Luxembourg, Switzerland and UK (including Guernsey and Jersey); locally established in Belgium, Czechoslovakia, Denmark, Egypt (potential EPPO country), Hungary, Italy, Netherlands, Poland, Portugal, Spain, Sweden, Tunisia and Yugoslavia.

Asia: India, Israel.

Africa: Egypt, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Morocco, Mozambique, South Africa, Tanzania, Tunisia, Zambia, Zimbabwe.

North America: Bermuda, Mexico, USA.

Central America and Caribbean: Costa Rica, El Salvador, Jamaica.

South America: Argentina, Brazil, Venezuela.

Oceania: Australia, New Caledonia, New Guinea, New Zealand, Papua New Guinea.

Source: EPPO Secretariat, Paris (1993-02)



EPPO *Reporting Service*

93/076 LIRIHU/FL...*Liriomyza huidobrensis* eradicated in Finland

In October 1992, the Finnish plant protection authorities found *Liriomyza huidobrensis* (EPPO A2 quarantine pest) in one glasshouse in Finland. Two other infections were found thereafter (see EPPO Reporting Service 93/014, 1993 No. 1). In all cases the damage was very serious. After the detection of the pest Finnish authorities immediately started to implement an eradication programme which included the destruction of all infested plant material as well as the potential hosts in the compartments of the glasshouses. The whole production sites, including the construction of the buildings, soil etc. were disinfected carefully. Chemical compounds were used regularly. Additionally, in January 1993, the Finnish authorities found infections of *L. huidobrensis* in two consignments of Senecio species from The Netherlands after their introduction into glasshouses. The time, however, between the introduction of the pest and its detection was too short for an establishment of the pest within the establishment. In order to confirm the absence of *L. huidobrensis* from Finland a survey was carried out comprising the inspection of 200 glasshouses. No further infestations by *L. huidobrensis* were found.

On the basis of the eradication programme and the results of the conducted survey, the Plant Production Inspection Centre of Finland considers *L. huidobrensis* as eradicated.

Source: Plant Production Inspection Centre, Helsinki (1993-04)

93/077 LIRIHU/IL...*Liriomyza huidobrensis* detected in Israel

The Ministry of Agriculture of Israel has informed EPPO that *Liriomyza huidobrensis* (EPPO A2 quarantine pest) has been found in cut flower production sites in the Jordan valley. The Plant Protection and Inspection Department of the Ministry of Agriculture is currently investigating the extend of this spread and possibilities to control it.

Source: Ministry of Agriculture, Department of Plant Protection and Inspection, Bet-Dagan (1993-03)

93/078

**LIRIHU/GB...Update on *Liriomyza huidobrensis* in the EC
(United Kingdom)**

Since the introduction of *Liriomyza huidobrensis* (EPPO A2 quarantine pest) into Europe in 1989, there have been over 170 outbreaks of *L. huidobrensis* in the UK between the first in October 1989 and December 1992. Early outbreaks were linked to imported chrysanthemum cuttings and other ornamentals, but local spread of the pest between glasshouses resulted in severe damage to many vegetable crops particularly lettuce, celery and cucumber. In their activities to eradicate the pest British authorities had the experience that *L. huidobrensis* is more difficult to eradicate than *L. trifolii*.

Widespread distribution of a number of infested imports of chrysanthemum cuttings and local spread to other nurseries particularly vegetable crops in West Sussex, resulted in a large number of outbreaks in the latter months of 1992.

Source: Bartlett, P.W.; Cheek, S. (1993) Alien *Liriomyza* species, the UK experience.
Poster at the International Symposium on Plant Health and the European Single Market, Reading (UK) 1993-03/04-30/1



EPPO *Reporting Service*

93/079 **THRIPL/EC...Eradication of Thrips palmi in the EC**
(Netherlands)

Outbreaks of *Thrips palmi* (EPPO A1 quarantine pest) in The Netherlands have been reported in the EPPO Reporting Service 93/017 (1993, No. 1). Dutch authorities have now informed EPPO that these outbreaks have been eradicated by the Plant Protection Service of The Netherlands. All in all 1.3 million ficus plants and 6 000 m² of *Rosa* plants for cutflower production were destroyed and the glasshouses of the three establishments where *T. palmi* was found were disinfected. Furthermore, a survey of the neighbouring establishments was carried out with no further finds of the pest. Additionally, surveys were carried out in high-risk establishments which import *Ficus* spp., chrysanthemum cuttings, carnation cuttings and other plants from Guatemala and other countries where *T. palmi* occurs. After the eradication programme and the surveys for *T. palmi* the Dutch Plant Protection Service considers *T. palmi* as eradicated. The establishments involved in this incident were officially released on 1993-02-08. The total costs involved in this eradication programme was announced as 8 million NLG.

More detailed information on the eradication programme can be obtained on request from the EPPO Secretariat.

In connection with the successful eradication of *T. palmi* Dutch authorities have additionally informed EPPO that a *T. palmi* outbreak has occurred in 1988 in the Tiel district of The Netherlands. The firm concerned had grown 4 000m² of Cactaceae and was placed under official notice after the *T. palmi* finding. The infestation was eliminated by means of crop destruction. A similar eradication programme had been applied as in the 1992 finding.

Source: **Ministry of Agriculture, The Netherlands (1993-03)**