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EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

EPPO

Reporting

Service

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94/129 EPPO...EPPO Reporting Service

As proposed by the EPPO Panel on Plant Quarantine information, the Secretariat will try to include in the EPPO Reporting Service more shorter items from a wider range of sources. For practical and economic reasons, we shall no longer be able to present each item of the Reporting Service on a single page. If you need to sort the items by topic, we remind you that the Reporting Service is also available on a diskette (RS 94/106), on which this operation can easily be handled.

Source: EPPO Secretariat, 1994-07

94/130 RU...Draft Plant Protection Law in Russia

A new Plant Protection Law has now been drafted by the Russian Ministry of Agriculture, and is now published for consultation. Its sections are: I. General disposition; II. State Plant Protection Service; III. State Phytosanitary Inspection; IV. Plant Protection Products and their use; V. Obligations of institutions and citizens; VI. Liabilities for infringements.

Source: Anonymous (1993), **Zashchita Rastenii, n°4, 3-6.**

Additional key words: new phytosanitary regulation.

94/131 MD...Quarantine list of Moldova

A list of pests, diseases and weeds of quarantine significance for the Republic of Moldova has recently been published. The names given are according to EPPO standards; when the name used in the original list differs, it is given in brackets.

INSECTS

Acrobasis pirivorella (Numonia pyrivorella)
Agrilus mali
Aleurocanthus woglumi
Aleurothrixus floccosus
Aonidiella aurantii
Bruchidius incarnatus
Callosobruchus chinensis
Callosobruchus maculatus
Callosobruchus spp.
Carposina niponensis
Caryedon serratus (C. gonagra)
Cassida oryzae (Caulophilus latinasus)
Ceratitis capitata
Ceroplastes japonicus
Ceroplastes rusci
Chionaspis furfura
Cydia molesta (Grapholitha molesta)
Dialeurodes citri
Dinoderus bifoveolatus
Dysmicoccus wistariae
Graphognathus leucoloma (Pantomorus leucoloma)
Hyphantria cunea
Icerya purchasi

Keiferia lycopersicella (Phthorimaea lycopersicella)
Leptinotarsa decemlineata
Liriomyza trifolii
Lopholeucaspis japonica
Nipaecoccus nipae
Paralipsa gularis
Phthorimaea operculella
Phyllocnistis citrella
Pinnaspis strachani
Popillia japonica
Pseudaulacaspis pentagona
Pseudococcus calceolariae (P. gahani)
Pseudococcus comstocki
Quadraspidiotus pernisiosus
Rhagoletis pomonella
Rhizoecus kondonis
Scrobipalpopsis solanivora
Sinoxylon conigerum
Spodoptera littoralis
Spodoptera litura
Trogoderma angustum
Trogoderma ballfinchus (?)
Trogoderma granarium
Trogoderma grassmani
Trogoderma longisetosum (?)
Trogoderma ornata
Trogoderma simplex
Trogoderma sternale
Viteus vitifoliae
Zabrotes subfasciatus

FUNGI

Cercospora kikuchii
Cochliobolus heterostrophus race T *(Helminthosporium maydis)*
Diaporthe helianthi (Phomopsis helianthi)
Mycosphaerella ligulicola (Didymella chrysanthemi)
Phialophora cinerescens
Phoma andina
Phomopsis viticola
Phymatotrichopsis omnivora (Phymatotrichum omnivorum)
Physalospora zeicola (Diplodia frumenti)
Puccinia horiana
Stenocarpella macrospora (Diplodia macrospora)
Synchytrium endobioticum
Thecaphora solani (Angiosorus solani)
Tilletia indica

BACTERIA

Clavibacter tritici (Corynebacterium tritici)
Erwinia amylovora
Erwinia stewartii
Pseudomonas caryophylli
Xanthomonas campestris pv. *hyacinthi*
Xylophilus ampelinus (Xanthomonas ampelina)

NEMATODES

Globodera pallida
Globodera rostochiensis
Nacobbus aberrans

VIRUSES AND VIRUS-LIKE DISEASES

Andean potato virus (latent and/or mottle?)
Barley stripe mosaic hordeivirus
Chrysanthemum stunt viroid
Grapevine flavescence dorée MLO
Peach latent mosaic viroid (American peach mosaic virus)
Plum line pattern virus (American)
Plum pox potyvirus
Potato yellow vein disease
Potato yellow dwarf rhabdovirus
Rose wilt disease

WEEDS

Acanthospermum hispidum
Acroptilon repens
Aeschynomene indica
Aeschynomene virginica
Ambrosia artemisiifolia
Ambrosia psilostachya
Ambrosia trifida
Bidens bipinnata
Cassia occidentalis
Cassia tora
Cenchrus pauciflorus
Croton capitatus
Cuscuta spp.
Diodia teres
Emex australis
Emex spinosa
Euphorbia dentata
Euphorbia marginata

WEEDS (cont.)

Helianthus californicus
Helianthus ciliaris
Helianthus petiolaris
Helianthus scaberrimus
Ipomoea hederifolia (I. hederacea)
Iva axillaris
Jacquemontia tamnifolia
Oenothera laciniata
Polygonum pensylvanicum
Sesbania exaltata
Sesbania macrocarpa
Sicyos angulatus
Sida spinosa
Solanum carolinense
Solanum elaeagnifolium
Solanum rostratum
Solanum triflorum
Striga spp.

Source: Anonymous (1994), **Zashchita Rastenii, n°2, 8-9.**

94/132 **CARSNI...*Carposina niponensis* - a synthetic analog of sex pheromone**

Smetnik and Prozorova describe recent developments in the use of a synthetic analog of the sex pheromone of *Carposina niponensis* (EPPO A1 quarantine pest) as a basis for traps which can be used to monitor populations of the pest in the limited part of far-eastern Russia where it occurs (Primor'skii and Khaborovskii provinces, Amur region, southern Sakhalin) and also to survey for possible occurence elsewhere.

Source: Smetnik, A.I.; Prozorova, I.V. (1993) A synthetic analog of the peachworm sex pheromone.
Zashchita Rastenii, No 4, 13-15.

94/133 **APLOBE...New host plants for *Aphelenchoides besseyi***

In 1989-90, *Aphelenchoides besseyi* (EPPO A2 quarantine pest) has been found on orchids, *Phalaenopsis* and *Cattleya* sp., imported from Taiwan to Shanghai (China). These species are reported for the first time as host plants of *A. besseyi*.

Source: Zhou, G.L. (1992) Identification of plant parasitic nematodes on Taiwan orchids.
Acta Phytopathologica Sinica 22 (3), 235-239.

Additional key words: new host plant.

94/134 **FRANOC/IMNSXX...*Frankliniella occidentalis* can transmit impatiens necrotic spot tospovirus to peppermint**

Studies have been carried out in Oregon, US, to demonstrate that *Frankliniella occidentalis* (EPPO A2 quarantine pest) is able to transmit impatiens necrotic spot tospovirus, as this transmission was simply assumed by the increasing occurrence of the disease in protected crops. The authors have shown that *F. occidentalis* can transmit a begonia isolate of impatiens necrotic spot tospovirus to peppermint (*Mentha piperita* cv. Black Mitcham), in glasshouse conditions. Adult thrips, 4, 6, 8 and 10 days after emergence were able to transmit the virus and higher rates were associated with the 8 days old adults, however adults of 2 days old were not able to transmit the virus. Detection (ELISA) of the virus in adult thrips was consistent with their ability to transmit the disease. On peppermint, symptoms of impatiens necrotic spot tospovirus include stunting, downward curling and leaf tip dieback, and occasional growing tip necrosis. Older leaves are bronze-coloured and exhibit sunken, brownish-grey lesions.
As in general, peppermint is a crop propagated under glasshouse and then planted in the field, the authors concluded that the behaviour of impatiens necrotic spot tospovirus and its transmission by thrips in the field still need to be studied.

Source: DeAngelis, J.D., Sether, D.M. and Rossignol, P.A. (1994) Transmission of impatiens necrotic spot virus in peppermint by western flower thrips (Thysanoptera: Thripidae).
Journal of Economic Entomology, 87 (1), 197-201.

94/135 **XANTFR/IT...Update on the presence of *Xanthomonas fragariae* in Italy**

Studies carried out in Italy in spring, summer and autumn 1993, have shown that *Xanthomonas fragariae* (EPPO A2 quarantine pest) is now present in the major regions producing strawberry: Lazio, Campania, Emilia-Romagna and Sicilia. The identification has been achieved by means of biochemical and physiological test, differential growth on selective media and pathogenicity tests.

Source: Scortichini, M.; Rossi, M.P. (1994) Updating on the presence of *Xanthomonas fragariae* in Italy
Informatore Fitopatologico, no. 6, 33-35.

Additional key words: detailled record

94/136 **NAPPO...XVII Annual Meeting of NAPPO**

Reports from Canada, Mexico and USA at the XVII Annual Meeting of NAPPO at Villahermosa (MX) in 1993-10-18/22, highlighted several phytosanitary points from North America.

1. *Lymantria dispar* (Gypsy moth)
The Asian form of *L. dispar* (of which the females fly more freely than in the European form) was introduced into western area of North America by trans-Pacific trade in grain and timber. In British Columbia (CA), it was eradicated in 1992.
Since interception of gypsy moth egg masses associated with military equipment being repatriated from Europe to North America, the question has arisen whether this may concern the Asian form, possibly now present in Europe. This question must actively be investigated.

2. *Tomicus piniperda*, the pine shoot beetle now occurs in 6 of the Great Lakes State of USA, causing serious losses. Federal and State regulations have been imposed, controlling the movement of Christmas trees, logs, chips, etc. A limited infestation appeared in Canada, leading to new restrictions on material from USA. Eradication is considered impossible, but spread can be slowed.

3. The A2 mating type of *Phytophthora infestans* has spread from Mexico to several US States and one area in British Columbia (CA). Potato growers fear the possible effects of greater genetic recombination in the late blight fungus.
EPPO note: In the EPPO region, this mating type was briefly considered as a quarantine pest in the mid-1980s. This was abandoned when it was later found to be widespread. No particular consequences of its introduction have been proved, despite equivalent fears.

4. Eradication of *Puccinia horiana* is expected in California (US) in early 1994. Detection surveys carried out in other US states have given negative results. Attempts are also being made to eradicate the fungus in Mexico. *P. horiana* is an EPPO A2 quarantine pest.

5. A single incidence of *Ips typographus* (EC Annex IIB pest) was found in Pennsylvania (US). Traps were placed to check there were no further consequence of this regulatory incident.

6. The B biotype of *Bemisia tabaci* continues to cause serious losses in California (US) and also in Mexico. IPM programmes are being initiated, and parasites sought worldwide.

Source: **EPPO Secretariat, 1994-06.**

94/137 **NEWPEST...A new virus infecting peanut**

Unusual symptoms of chlorotic ringspot, chlorotic line pattern and mottling on an *Erictoides* hybrid found in a germplasm collection of USDA in Oklahoma led to the identification of a new virus of peanut (*Arachis hypogaea*) called peanut chlorotic ringspot virus (PCRV). The virus was isolated, characterized and found different from other peanut viruses such as peanut mottle potyvirus, peanut stunt cucumovirus, tomato spotted wilt tospovirus, peanut stripe potyvirus. The virus was mecanically transmitted to fourteen peanut cultivars causing identical symptoms to those originally observed on the *Erictoides* hybrid. The virus can also systemically infect pea (*Pisum sativum* cv. Little Marvel), bean (*Phaseolus vulgaris* cv. Topcrop) and lupin (*Lupinus albus* cv. Tiftwhite) where it respectively causes mosaic and very few chlorotic rings; necrotic local lesions; severe malformation and remarkable reduction in leaflet area. In these experiments, it was found that the virus did not infect *Vigna unguiculata* (cowpea) and *Glycine max* (soybean). In electronic microscopy, peanut chlorotic ringspot virus appeared as long flexible filamentous particles ranging in length from 750-850 nm.

Source: Wagih, E.E.; Melouk, H.A., Sherwood, J.L. (1994) Peanut chlorotic ringspot virus (PCRV), a newly discovered virus infecting peanut (Arachis hypogaea).
Journal of Phytopathology, 140 (2), 133-144.

Additional key words: new pest.

94/138 **BEMITA...*Bemisia tabaci* biotype B considered as a separate species : *Bemisia argentifolii***

Bemisia tabaci (EPPO A2 quarantine pest) is a morphologically variable species. In USA, two populations have been distinguished : *B. tabaci* biotype A (cotton strain) found since 1897 and *B. tabaci* biotype B (poinsettia strain) discovered in 1986 which causes a plant disorder referred to as squash silverleaf. In California, US, authors have shown that *B. tabaci* biotype B is distinct from *B. tabaci* (biotype A) by crossing experiments, studies on intraspecific and interspecific mating behaviour, analysis of allozyme frequencies, PCR analysis of genomic DNA, and morphological characters. Morphologically, *B. tabaci* biotype B can be distinguished from *B. tabaci* biotype A in the fourth nymphal instar by the absence of a dorsal seta, the width of the thoracic tracheal folds, the width of the wax extrusions from the tracheal folds, and in the adult stage by migration distances of allozymes for three enzyme systems (phosphoglucomutase, phosphoglucose isomerase, esterase). The authors concluded that *B. tabaci* biotype B should be considered as a separate species *Bemisia argentifolii* Bellow & Perring, n. sp. (proposed common name: silverleaf whitefly), and that a taxonomic revision of the whole genus *Bemisia* might be needed, as there is a possibility for a complex of species related to *B. tabaci*.

EPPO note: According to a paper from Bedford *et al.* (1992), *B. tabaci* biotype B is now found throughout the Mediterranean region, in South Africa, Caribbean, Central America and North America. In fact, it is probable that most outbreaks in glasshouses in Northern Europe involve this biotype. This point needs to be further investigated, and in particular the question is raised whether the concept of a new species (*B. argentifolii*) can be accepted by EPPO.

Source: Bellows, T.S., Jr; Perring, T.M.; Gill, R.J.; Headrick, D.H. (1994) Description of a species of *Bemisia* (Homoptera: Aleyrodidae).
Annals of the Entomological Society of America, 87 (2), 195-206.

Bedford, I.D., Briddon, R.W.; Markham, P.G., Brown, J.K.; Rosell, R.C. (1992) *Bemisia tabaci* - Biotype characterisation and the threat of this whitefly species to agriculture.
Proceedings of the Brighton Crop Protection Conference - Pests and Diseases, vol. 3, 1235-1240.

Additional key words: new species.

94/139 **TROGGA...EPPO Distribution List for *Trogoderma granarium***

Due to new information or modifications provided by several countries during the validation of geographical data, the distribution list for *Trogoderma granarium* can be modified as follows.

EPPO Distribution List: *Trogoderma granarium*

It is very important to distinguish between records which relate to introductions and those of established infestations. *T. granarium* is established within an area broadly limited north by the 35° parallel, south by the Equator, west by West Africa and east by Myanmar; i.e. the warm dry regions along the Suez route from the Indian subcontinent to Europe. *T. granarium* has been introduced into areas of similar climatic conditions elsewhere, especially the alternative route between India and Europe around Africa. Initially, these introductions caused severe damage but outbreaks have been local and have, in most cases, been eradicated. In general, *T. granarium* is only successful in competition with other major stored product pests in conditions of low humidity.
T. granarium has also established in some areas of unfavourable climate, in protected environments only, for example in Western Europe.

EPPO region: Established in Algeria (potential EPPO country), Austria (protected environments only), Cyprus, Egypt (potential EPPO country), Greece, Israel, Lebanon (potential EPPO country), Libya (potential EPPO country), Morocco, Spain, Switzerland (protected environments only), Syria (potential EPPO country), Tunisia, Turkey (south-eastern), UK (protected environments only). Found in the past but did not establish in Belgium, Denmark, Germany (eradicated), Hungary, Ireland, Luxembourg, Netherlands, Russia, Sweden. Intercepted only in Bulgaria, former Czechoslovakia, Italy, Poland, Portugal.

Asia: Afghanistan, Bangladesh (unconfirmed), Cyprus, India, Indonesia (found but not established), Iran, Iraq, Israel, Japan (eradicated), Lebanon, Malaysia (eradicated), Myanmar (Burma), Pakistan, Saudi Arabia, Sri Lanka, Syria, Taiwan, Turkey (south-eastern), Yemen.

Africa: Algeria, Burkina Faso, Egypt, Kenya (found but not established), Libya, Mali, Mauritania, Morocco, Niger, Nigeria (mainly in north), Senegal, Sierra Leone (found but not established), Somalia, South Africa (eradicated), Sudan, Tanzania (found but not established), Tunisia, Zambia, Zimbabwe.

North America: Mexico (unconfirmed), USA (found but not established in Arizona, California, New Mexico).

South America: Venezuela.

Oceania: Intercepted only in Australia (Beal, 1956; Bailey, 1958), found but not established in New Zealand.

This distribution list replaces all previous published EPPO Distribution Lists on *Trogoderma granarium*!

Source: **EPPO Secretariat, 1994-07.**

94/140 **TROGGA...**Specific ELISA test to identify *Trogoderma granarium*

An ELISA test, using a monoclonal antibody highly specific to *Trogoderma granarium* (EPPO A2 quarantine pest), has been developed in Wisconsin (US). With this method, it was possible to distinguish adults, pupae and larvae of *T. granarium* from six other *Trogoderma* species (*T. anthrenoides*, *T. glabrum*, *T. inclusum*, *T. simplex*, *T. sternale plagifer*, *T. variabile*). The authors felt that this method could be valuable for quarantine purposes as it provides rapid and accurate identification of *T. granarium*.

Source: Stuart, M.K.; Barak, A.V.; Burkholder, W.E (1994) Immunological identification of *Trogoderma granarium* Everts (Coleoptera: Dermestidae) **Journal of Stored Products Research, 30(1), 9-16.**

Additional key words: new phytosanitary procedure.

94/141 **XYLLFA...**Specific identification of *Xylella fastidiosa* by PCR

Studies on the potential use of PCR (Polymerase Chain Reaction) for the identification of *Xylella fastidiosa* (EPPO A1 quarantine pest) have been carried out in Italy. By using a pair of specific primers, it was possible to amplify a part of the 16S rRNA gene of *X. fastidiosa*. During this experiment five strains of *X. fastidiosa* (grapevine isolates and non-grapevine isolates) and *Xylophilus ampelinus*, *Xanthomonas campestris* pv. *vesicatoria*, *Pseudomonas solanacearum*, *Pseudomonas syringae* pv. *syringae*, *Escherichia coli* were tested ; only *X. fastidiosa* strains gave positive results. The authors concluded that the PCR assay on pure bacterial cultures allowed a rapid, sensitive and specific identification of *X. fastidiosa* and that these results encourage application of PCR in setting up a reliable diagnostic assay for the detection of *X. fastidiosa* in infected tissues.

Source: Firrao, G.; Bazzi, C. (1994) Specific identification of *Xylella fastidiosa* using the polymerase chain reaction.
Phytopathologia Mediterranea, 33(1), 90-92.

94/142 **PLPXXX/AL...**Plum pox potyvirus and other fruit tree viruses in Albania

In 1993, surveys have been carried out in Albania in plum, peach and apricot orchards. Stone fruits are important crops in Albania, European and Japanese plum (*Prunus domestica* and *P. salicina*) being the most widely grown species (over 2.7 million plants) whereas peach (*P. persica*) and apricot (*P. armeniaca*) are generally confined to the plains. Surveys carried, were based on visual observation of symptoms, DAS-ELISA test, immunoelectronic microscopy, graft-transmission to GF 305 and herbaceous hosts. The results of this survey have shown that plum pox potyvirus (EPPO A2 quarantine pest) is now widespread in large areas of Albania on plum, and an eradication programme does not seem feasible. However, plum pox is rare in apricot and absent on peach. Other viruses have also been found on fruit trees : apple chlorotic leaf spot trichovirus, prunus necrotic ringspot ilarvirus, prune dwarf ilarvirus. Until now, infections of apple mosaic ilarvirus, tomato ringspot nepovirus (EPPO A1 quarantine pest) and tomato black ring nepovirus (EPPO A2 quarantine pest) have not been detected in Albania.

Source:

Myrta, A.; Di Terlizzi, B.; Digiaro, M (1994) A preliminary account of the sanitary status of stone fruit trees in Albania.
Paper presented at the XVI International Symposium on Viruses and Virus diseases of Temperate Fruit Crops, 1994-06-27/07-03, Rome (IT)

Myrta, A.; Di Terlizzi, B.; Digiaro, M (1994) Occurence and distribution of Sharka in Albania.
Phytopathologia Mediterranea, 33(1), 59-62.

94/143 **PLPXXX...**Plum pox potyvirus detected in sour cherry from Moldova

In 1987, ringspot symptoms were observed on leaves and fruits of sour cherry, *Prunus cerasus* cv. Kistevaya, grown in an orchard at the Horticultural Research Institute, Kishinev, Moldova. Filamentous virus-like particles, 700-800 nm in length, were observed in leaf dips of infected tissue. Ultra thin sectioning of infected tissue revealed cylindrical inclusion bodies typical of the potyvirus group. Immunosorbent electron microscopy (ISEM) assays, using an antiserum to Van Oosten's isolate plum pox potyvirus, detected highly decorated virus particles from infected tissue. These results suggested that the virus from sour cherry trees is plum pox potyvirus (EPPO A2 quarantine pest). This was the first report of this disease on sour cherry.

Further studies have been carried out using RT-PCR and molecular hybridization tests on samples of leaf, root, and flower collected on several sour cherry cultivars from Moldova which had previously given positive results for PPV by ELISA and ISEM. The results confirmed that the potyvirus found in sour cherry trees is PPV and that the virus is systemically distributed in the plants.

Source: Kalashyan, Yu.A.; Bilkey, N.D.; Verderevskaya, T.D.; Rubina E.V. (1993) Detection of plum pox virus in sour cherry from Moldova.
Paper presented at the EPPO Conference on Plum Pox (Bordeaux, FR, 1993-10-05/08).

Nemchinov, L.; Hadidi, A.; Verderevskaya, T.D. (1994) Distribution of plum pox virus in infected sour cherry trees as revealed by RT-PCR assays for the genomic 3' non-coding region.
Paper presented at the XVI International Symposium on Viruses and Virus diseases of Temperate Fruit Crops, 1994-06-27/07-03, Rome (IT)

Additional key words: new host plant.

94/144 **PLPXXX/IT...**New finding of plum pox potyvirus on sweet cherry in Italy

Recently, a decline of sweet cherry trees (*Prunus avium*) has been observed in the South of Italy (Puglia). Diseased plants showed apical necrosis, leaf mottle and chlorosis, necrotic rings on fruits, gum exudates on bark and they generally die after 5-8 years. Biological, serological and RT-PCR tests have shown that the virus present in sweet cherry is an isolate of plum pox potyvirus (EPPO A2 quarantine pest). This is the first report of plum pox potyvirus on sweet cherry.

Source: Crescenzi, A.; Nuzzaci, M.; Levy, L.; Piazzolla, P.; Hadidi, A. (1994) Plum pox virus (PPV) in sweet cherry.
Paper presented at the XVI International Symposium on Viruses and Virus diseases of Temperate Fruit Crops, 1994-06-27/07-03, Rome (IT)

Additional key words: new host plant.

94/145 **PLPXXX/CL...**Situation of plum pox potyvirus in Chile

In December 1992, symptoms of PPV were detected for the first time on leaves and fruits of apricot (cv. Bergeron) and fruits of peach (cv. Spring Crest) in the old collection of peach and apricot mother plants of the experimental station of INIA (Sub-Estacion Experimental del Instituto de Investigaciones Agropecuarias - Los Tilos). The occurrence of PPV was confirmed by ELISA using polyclonal antiserum. Surveys were carried out and plum pox was found in two nurseries of the Metropolitan region on peaches and nectarines. In accordance with phytosanitary regulations, all infected plants were destroyed.

This first record of PPV outside the Old World was presented at the EPPO Conference on Plum Pox in October 1993. Since then, the EPPO Secretariat has been informed by the Chilean Plant Protection Service that after the destruction of infested material the disease has not been found again. Surveys have been carried out in 1993 and 1994, in 273 commercial orchards and 70 nurseries of Prunus, no symptoms have been observed and ELISA tests using monoclonal or polyclonal antisera gave negative results. A few false positive results were obtained with polyclonal antibodies, but the absence of PPV was later confirmed by using monoclonal antibodies, pathogenicity tests and PCR. Nevertheless, the Chilean Plant Protection Service will continue to monitor orchards and nurseries and to take quarantine measures against this disease.

Source: Acuña, H. (1993) Outbreaks of plum pox virus in Chile.
Abstract presented at the EPPO Conference on Plum Pox (Bordeaux, FR, 1993-10-05/08).

EPPO Secretariat, 1994-06.

94/146 **PLPXXX...EPPO Distribution List for plum pox potyvirus**

Due to the new situation of plum pox potyvirus in Chile (see RS 94/145) and recent information provided by many EPPO member countries during the EPPO Conference on plum pox (Bordeaux, FR, 1993-10-05/08), the geographical distribution of plum pox can be modified as follows.

EPPO Distribution List: Plum pox potyvirus

PPV has its origin in eastern Europe (Bulgaria), and has spread from there to most of the continent (OEPP/EPPO, 1974). With the exception of the recent finding of plum pox in Chile, no other case has been reported from outside the Euro-Mediterranean area.

EPPO region: Practically all European countries have been affected, but to very different extents: widespread in Albania (potential EPPO country), Bulgaria, Croatia, Czech Republic, Germany, Greece, Hungary, Poland, Romania, Slovakia, Slovenia, Yugoslavia; present locally in Austria, Cyprus, Egypt (potential EPPO country), France (very locally), Italy, Luxembourg, Moldova (potential EPPO country), Russia, Spain, Syria (potential EPPO country), Turkey, Ukraine (potential EPPO country) and United Kingdom; few reports in Belgium and Portugal; reported but not confirmed in Estonia. Intercepted only in Sweden. The disease has been eradicated in Denmark, Netherlands and Switzerland.

Asia: Cyprus, Georgia (unconfirmed), Russia, Syria, Turkey.

Africa: Egypt.

South America: Chile (found in 1992, under eradication).

Oceania: The unconfirmed record for New Zealand which appeared in the first edition of the EPPO data sheet (OEPP/EPPO, 1983) is an error.

Source: **EPPO Secretariat, 1994-07.**

More information will be available in the proceedings of the EPPO Conference on Plum Pox (Bordeaux, FR, 1993-10-05/08) to be published in the EPPO Bulletin 24(3) !

94/147 **PSDMPI/MA...History of a record**

or

The art of assembling distribution lists

In 1938, the Plant Protection Service of Morocco published a leaflet advising growers to steep pea seeds in formalin against pea bacteriosis caused by *Pseudomonas pisi* (EPPO A2 quarantine pest). Whether this was aimed at imported or internally produced seed or whether any copies of this leaflet still exist, is uncertain. The Imperial Mycological Institute in London obtained and abstracted this leaflet in *Review of Applied Mycology*, and when the Commonwealth Mycological Institute (CMI; as it became) published a distribution map of the disease in the 1950s, the abstract became the basis of a record for Morocco.

When in the 1970s, EPPO first published a data sheet on *P. pisi*, Morocco was included as 'found, but not established' on the basis of a country report of uncertain foundation. When in the 1980s the data passed into *PQR*, the EPPO plant quarantine data base, it was accordingly rated 'found but not established'. In the corresponding FAO data base, however, the record appeared rated as 'limited distribution', probably on the basis of the CMI map.

When the EPPO data sheet was revised in the 1990s by an expert author, he rejected the formulation 'found but not established' for several records of the bacterium and preferred 'sporadic outbreaks' which has not quite the same meaning. When the Moroccan Plant Protection Service was again consulted by EPPO to validate this information, it declared that *Pseudomonas syringae* pv. *pisi* (as it has now become) does not occur in Morocco.

Finally, when the International Mycological Institute (as it has now become) revised its map in 1993, it retained the 1938 report but added a note 'sporadic', based on '*Quarantine Pests for Europe*' (i.e. the revised EPPO data sheet).

The question arises: has *Pseudomonas syringae* pv. *pisi* ever occurred in Morocco ? Do all these records from seemingly distinct sources correspond to anything at all ? Or is the whole situation an unintentional fabrication ?
Recently asked to confirm the situation, the Moroccan Plant Protection Service restated that according to surveys carried out in all vegetable growing areas during the last 20 years, symptoms of *Pseudomonas syringae* pv. *pisi* have not been found in Morocco, nor do they have any indication of its earlier presence.

We hope that it is relatively unusual for a pest distribution record to have such a history, but suspect that it does happen from time to time. Modern possibilities for transfer of records from one data base to another make it even easier for such situations to arise.

Source: **EPPO Secretariat, Paris (1994-03)**

94/148 **PSDMPI...**EPPO Distribution List for *Pseudomonas syringae* pv. *pisi*

Due to the stated absence of *Pseudomonas syringae* pv. *pisi* in Morocco and modifications given by France, Germany, Portugal, Switzerland, Ukraine, United Kingdom and other countries outside the EPPO region, the geographical distribution of this bacterium can be modified as follows.

EPPO Distribution List: *Pseudomonas syringae* pv. *pisi*

EPPO region: Widespread in France. Locally established in Bulgaria, Greece, Hungary, Italy, Moldova (potential EPPO country), Romania, Russia (Voronezh, Altai), Ukraine (potential EPPO country), United Kingdom and Yugoslavia. Sporadic outbreaks have been recorded from Denmark and Netherlands. Also reported from Israel, Germany (found in the past but not established), Switzerland (unconfirmed) and Lebanon (potential EPPO country). Eradicated in Portugal.

Asia: Armenia, India (unconfirmed), Indonesia, Israel, Japan, Kazakhstan, Kyrgyzstan, Lebanon, Nepal, Russia (Voronezh, Altai).

Africa: Kenya, Malawi, South Africa, Tanzania, Zimbabwe (unconfirmed).

North America: Bermuda, Canada (widespread), Mexico (México only), USA (widespread).

South America: Argentina, Colombia, Ecuador (found in the past but not established), Uruguay (few reports).

Central America: Costa Rica (locally established).

Oceania: Australia (locally established), New Caledonia and New Zealand (widespread).

This distribution list replaces all previous published EPPO Distribution Lists on *Pseudomonas syringae* pv. *pisi* !

Source: **EPPO Secretariat, 1994-07.**

94/149 **PSDMSO...EPPO Distribution List for *Pseudomonas solanacearum***

Due to the recent reports of *Pseudomonas solanacearum* in Belgium, Netherlands (RS 93/070), United Kingdom (RS 93/031) where the disease is under eradication and additional information provided by several countries (Australia, Canada, Denmark, Italy, Morocco, Paraguay, Russia, Ukraine, Uruguay), the distribution list for *P. solanacearum* can be modified as follows.

EPPO Distribution list: *Pseudomonas solanacearum*

P. solanacearum is widespread in tropical, subtropical and warm temperate areas throughout the world.

EPPO region: Algeria (potential EPPO country - unconfirmed), Belgium (few reports, under eradication), Bulgaria, Cyprus, Denmark (found in ornamental *Musa* and eradicated), Egypt (potential EPPO country), Greece, Italy (found before 1960s, not established), Israel (found but not established), Lebanon (potential EPPO country), Libya (potential EPPO country), Morocco (found before 1950s, not established), Netherlands (few reports, under eradication), Poland (unconfirmed), Portugal (eradicated), Romania, Russia (European part, less common in the Far East), Spain (only Canary Islands, eradicated on the mainland), Sweden (eradicated), Tunisia, Turkey, Ukraine (potential EPPO country), United Kingdom (England only, few reports, under eradication), Yugoslavia. It has been intercepted in Finland and Sweden (1992, RS 525/01).

Asia: Bangladesh, Bhutan, Brunei Darussalam, China, Cyprus, Democratic People's Republic of Korea, Georgia, Hong Kong, India, Indonesia, Iran, Israel (found but not established), Japan, Kampuchea, Lebanon, Malaysia, Myanmar (Burma), Pakistan, Philippines, Republic of Korea, Russia (European part, less common in the Far East), Sri Lanka, Taiwan, Thailand, Turkey, Vietnam.

Africa: Algeria (unconfirmed), Angola, Burkina Faso, Burundi, Egypt, Ethiopia, Gabon, Kenya, Libya, Madagascar, Malawi, Mauritius, Morocco (found before 1950s, not established), Mozambique, Nigeria, Réunion, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Tanzania, Tunisia, Uganda, Zaire, Zambia, Zimbabwe.

North America: Canada (Ontario only), Mexico (Michoacan, Puebla, Sinaloa), USA (including Hawaii).

Central America and Caribbean: Belize, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guadeloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Nicaragua, Panama, Puerto Rico, St. Lucia, St. Vincent and Grenadines, Trinidad and Tobago.

South America: Argentina, Brazil, Chile, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.

Oceania: American Samoa, Australia (Northern Territory, Queensland, South Australia, Western Autralia), Cook Islands, Fiji, French Polynesia, Guam, Micronesia, New Caledonia, New Zealand, Papua New Guinea, Tonga, Vanuatu, Western Samoa.

Separate information is available for race 2 of *P. solanacearum* which specifically attacks banana, causing Moko disease, a threat to banana production in Mediterranean countries.

EPPO Distribution List: *Pseudomonas solanacearum* race 2 (Moko disease of banana)

EPPO region: Absent

Asia: India, Sri Lanka, Libya, Malaysia, Philippines

Africa: Sierra Leone, Somalia

Central America and Caribbean: Belize, Costa Rica, Grenada, Guatemala, Guyana, Honduras, Nicaragua, El Salvador, Trinidad and Tobago

North America: Mexico

South America: Argentina, Colombia, Ecuador, Peru, Paraguay, Suriname, Venezuela

These distribution lists replace all previous published EPPO Distribution Lists on *Pseudomonas solanacearum*!

Source: **EPPO Secretariat (1994-06)**

94/150 **METHYL BROMIDE...**Conference on methyl bromide alternatives and emission reductions

The 1994 Annual International Research Conference on methyl bromide alternatives and emission reductions will be held in Kissimmee, Florida (US), on 1994-11-13/16. This conference is organized jointly by the Crop Protection Coalition, EPA and USDA. The main objective of this Conference is to provide data exchange on current state of the art research for methyl bromide alternatives between official bodies, researchers and users of methyl bromide.

Contact address: Gary Obenauf, Crop Protection Coalition,
P.O Box 5335, Fresno, CA 93755
Tel: (209) 244-4710
Fax: (209) 224-2610

Source: **EPPO Secretariat, 1994-06.**

94/151 **PUBLICATION/FAO...**Quarantine for seeds

A Workshop on quarantine for seed in the Near East has been organized jointly by FAO, ICARDA and the Danish Government Institute of Seed Pathology for Developing Countries, in 1991-11-02/09, in Aleppo (SY). This Workshop reviewed seed-borne pests of quarantine importance (fungi, bacteria, viruses, insects), seed testing methods, seed treatments and also international and regional cooperation in the field of plant quarantine. The workshop established a draft quarantine list for seed-borne pests for the Near East liable to be carried by certain crops, and made several recommendations to countries of the Near East region to strengthen quarantine for seeds by ensuring adequate facilities for seed testing, staff training and better exchange of information.

Quarantine for seed. FAO Plant Production and Protection Paper, n°119, Rome 1993.

can be obtained from:

Distribution and Sales Section, FAO,
Viale delle Terme di Caracalla,
00100 Rome,Italy

Source: **EPPO Secretariat, 1994-06.**