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By browsing through the literature, the EPPO Secretariat has extracted the following new data concerning quarantine pests.

**New geographical records**


Lime witches' broom phytoplasma (EU annex II/A1) occurs in Sistan-Baluchistan (south-east), Iran. This is the first report of this disease in Iran. It was previously limited to Oman and United Arab Emirates. This organism is also known as 'Candidatus Phytoplasma aurantifolia' (see EPPO 96/032). Review of Plant Pathology, 77(11), p 1288-1289 (9448).

*Mycosphaerella dearnessii* (EPPO A2 quarantine pest) has been found for the first time in Austria on *Pinus mugo*. Review of Plant Pathology, 77(9), p 1056 (7788).

*Phyllocnistis citrella* was first found in Brazil in 1996, at Teresina in Piauí State. The citrus leafminer also occurs in Santa Catarina and São Paulo States. Review of Agricultural Entomology, 86(12), p 1515-1516 (11742-11748).

Tomato spotted wilt tospovirus (EPPO A2 quarantine pest) was found in Venezuela during a survey on tomato crops in Barinas State, in 1994-95. The EPPO Secretariat had previously no data on the occurrence of this virus in Venezuela. Review of Plant Pathology, 77(9), p 1025 (7563).

**Detailed records**

*Anastrepha obliqua* (EPPO A1 quarantine pest) occurs in Minas Gerais, Brazil. Review of Agricultural Entomology, 86(12), p 1442 (11155).

*Bemisia tabaci* (biotype B - EPPO A2 quarantine pest) occurs in the state of Sonora, in Mexico. Review of Agricultural Entomology, 86(9), p 1048 (8165).


*Diaphorina citri* (EPPO A1 quarantine pest) occurs in Gujarat, India. Review of Agricultural Entomology, 86(10), p 1271 (9813).
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In Indonesia, *Liriomyza huidobrensis* (EPPO A2 quarantine pest) was first reported from Java, in 1994. It has now invaded the major vegetable-producing regions of Java and Sumatra. The most severely attacked crop is potato, although the pest has been found on more than 20 species of vegetable, ornamental and weed hosts. Review of Agricultural Entomology, 86(10), p 1249 (9645).


*Liriomyza trifolii* (EPPO A2 quarantine pest) occurs in New Delhi, India. Review of Agricultural Entomology, 86(9), p 1139 (8834).


*Rhagoletis mendax* (EPPO A1 quarantine pest) was trapped in 1995-96, in Rhode Island (US). Review of Agricultural Entomology, 86(9), p 1125 (8732).

**New hosts**

*Anastrepha suspensa* (EPPO A1 quarantine pest) has been found on raspberries (*Rubus idaeus*) in south Florida (US) in 1997. Review of Agricultural Entomology, 86(10), p 1268 (9794).

*Colletotrichum acutatum* (EU Annex II/A2) is reported for the first time on soybean (*Glycine max*). It was found in a field of Tavazzano, near Milano (Italy). Review of Plant Pathology, 77(11), p 1257 (9224).

*Piper hispidinervium* is reported as a new host of *Ralstonia solanacearum* (EPPO A2 quarantine pest) in Brazil. Review of Plant Pathology, 77(11), p 1312 (9617).

**Source:** EPPO Secretariat, 1998-10.

**Additional key words:** new records, detailed records, new host plants

**Computer codes:** ANSTOB, ANSTSU, BEMIAR, CHONFU, COLLAC, CSLWBX, DIAACI, IPSXCE, HETDRO, HETDRO, LIRIHU, LIRISA, LIRITR, MALADI, PHYNCI, PSDMSO, RHAGME, SCIRAC, TMSWV, AU, BR, CN, ID, IN, IR, MX, RU, SI, US, VE
The Plant Health Report 1997 has been prepared by IICA Office in Barbados and includes a compilation of replies to a questionnaire on quarantine pests received from several countries in the Caribbean (Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Dominica, Dominican Republic, French Guiana, Grenada, Guyana, Haiti, Jamaica, Martinique, Montserrat, St Kitts & Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Trinidad & Tobago). The records which are new to the EPPO Secretariat are presented below.

*Bemisia tabaci* biotype B (EPPO A2 quarantine pest): Martinique.

Palm lethal yellowing phytoplasma (EPPO A1 quarantine pest): Bahamas (on the basis of symptoms).

*Parasaissetia nigra* (EU Annex II/A1): Martinique. This confirms earlier reports.

*Phyllocnistis citrella*: Guyana. Found in March 1997, causing damage on young shoots and twigs.


*Thrips palmi* (EPPO A1 quarantine pest): Montserrat.

*Toxoptera citricida* (EPPO A1 quarantine pest): its presence is suspected in one grove in Abaco (Bahamas). But this remains to be confirmed.


**Additional key words:** new records

**Computer codes:** BEMIAR, CRYPMA, PALYXX, PHYNCI, SAISNI, THRIPL, TOXICI, BS, GY, MQ, MS
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Present situation of Erwinia amylovora in Austria

The EPPO Secretariat has recently been informed by the Austrian Plant Protection Service of the present situation of Erwinia amylovora (EPPO A2 quarantine pest).

• Situation in Vorarlberg (from 1993 to 1998)
In Austria, fireblight was first reported in 1993 (see EPPO RS 94/172) in the region of Vorarlberg state (on a few plants in one village). In this region, from 1993 to 1998, fireblight spread from this initial focus to a few localities. Intensive eradication measures were taken, and the disease could successfully be eradicated in some foci. In Vorarlberg state, the forecasting programme 'Maryblight' has been used, and in 1998 the application of streptomycine-sulphate during the flowering period has been allowed under strict security conditions. In Vorarlberg state, the infestation remains limited.

• Situation in other regions in 1998
In August 1998, an outbreak of fireblight was observed in some localities of Tyrol state. The disease occurred on old apple and pear trees in extensive fruit production. In September 1998, the disease was observed in a single place near Salzburg, on trees in extensive fruit production.
In all infested areas, intensive eradication measures were immediately taken (partial or complete destruction of infested plants). Surveys in all regions of Austria are being intensified and fruit producers, nurseries and bee-keepers are well informed about the risks. All nurseries are intensively inspected, and so far they have been found free from fireblight.


Additional key words: detailed record
Computer codes: ERWIAM, AT

Raphiolepis indica is a host plant of Erwinia amylovora

Indian hawthorn Raphiolepis indica (Rosaceae) has been reported as a natural host plant of Erwinia amylovora (EPPO A2 quarantine pest) for the first time in Louisiana (US). Twig and branch death was observed in an experimental plantation on 6 plants of R. indica cv. Olivia in May 1998. R. indica was previously reported only as an experimental host (although R. umbellata is a natural host). In the Louisiana plantation, among 9 cultivars of R. indica, only cv. Olivia was infected with fireblight and all 6 plants died by late summer.

Plant Disease, 82(12), p 1402.

Additional key words: new host plant
Computer codes: ERWIAM
First report of plum pox potyvirus in Lithuania in a collection of plum trees

Symptoms of leaf mottling, diffuse chlorotic spots, rings and vein banding were observed in plums (*Prunus domestica*) in the tree collection of the Lithuanian Institute of Horticulture in Babtai in 1996. The presence of plum pox potyvirus (EPPO A2 quarantine pest) was detected by DAS-ELISA, electron microscopy, inoculation to herbaceous indicators and RT-PCR. The presence of plum pox potyvirus in plum trees of the collection at Babtai was confirmed in 1997 and 1998 by ELISA. According to serological tests, it appears that the strain found in Babtai belongs to the Dideron type. This is the first report of plum pox potyvirus in Lithuania.


Additional key words: new record

Computer codes: PPVXXX, LT

Colorimetric PCR to detect viruses in woody plants

A colorimetric PCR technique has been developed in California (US). It is based on the use of PCR in which gel electrophoresis or molecular hybridization to detect virus-specific products is replaced by a colorimetric reaction in ELISA plates. This technique was successfully used to detect the following viruses in woody and herbaceous plants: a walnut isolate of cherry leaf roll nepovirus, citrus tristeza closterovirus (EPPO A2 quarantine pest), prunus necrotic ringspot ilarvirus and tomato ringspot nepovirus (EPPO A2 quarantine pest). The method can also provide quantification of the viruses.


Additional key words: detection method

Computer codes: CTVXXX, ToRSVX
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**99/007**  
*Cacopsylla pruni* is a vector of European stone fruit yellows phytoplasm

European stone fruit yellows phytoplasm (ESFY - quarantine status under review) is thought to be the causal agent of several stone fruit disorders (plum leptonecrosis, decline of European plum, apricot chlorotic leafroll, cherry Molière disease, and other yellows or decline of stone fruits). In several areas of north-eastern Italy, ESFY has caused problems on plums (and particularly on Japanese plums *Prunus salicina*) where 50-70% of the trees became infected within the first three or four years of planting. So far the natural vectors of ESFY remained unknown. ESFY is closely related to apple proliferation and pear decline phytoplasmas (both EPPO A2 quarantine pests), and pear decline is known to be transmitted by at least two species of *Cacopsylla* (*C. pyri* and *C. pyrisuga*). Transmission studies were carried out in Italy on the possible role of *Cacopsylla pruni* which was found to be the most common psyllid species in plum orchards in the infested area studied. It was demonstrated that both nymphs and adults of *C. pruni* (caught in the field or raised in the laboratory on infected plants) are able to transmit ESFY to *P. salicina* cv. Ozark Premier. *C. pruni* is oligophagous on *Prunus*, it overwinters on wild plants such as conifers and has a single generation per year. The authors stressed that further investigations are needed on the main transmission parameters of ESFY and on the life cycle of the vector.

Journal of Plant Pathology, 80(3), 233-239.

**Additional key words:** epidemiology  
**Computer codes:** ESFYXX

**99/008**  
New phytoplasma disease of olive in Spain

In Spain, a new disease has been observed since 1993 in several olive orchards near Badajóz (Extremadura). Affected trees showed abnormal shoots, shortened internodes and proliferation (witches' broom). In 1997, analysis (PCR using universal primers) revealed the presence of phytoplasmas belonging to the stolbur group in diseased olive trees. It is suspected that the cicadellid *Hyalesthes obsoletus* can transmit the phytoplasma in the field. This is the first report of a phytoplasma disease of olive in Spain. It is recalled that a similar disease (olive witches' broom) has recently been reported in central Italy (EPPO RS 97/195).

Phytoma España, no. 102, 211-212.

**Additional key words:** new pest  
**Computer codes:** ES
'Candidatus Phytoplasma australiense' is the phytoplasma associated with Australian grapevine yellows, papaya dieback and Phormium yellow leaf diseases.

Molecular studies carried out in New Zealand and Australia have shown that the phytoplasmas associated with Australian grapevine yellows, papaya dieback and Phormium yellow leaf diseases belong to the same species. This phytoplasma is distinct from German grapevine yellows (Vergilbungskrankheit) and stolbur. The name 'Candidatus Phytoplasma australiense' had previously been proposed for the phytoplasma associated with Australian grapevine yellows.

Phormium yellow leaf disease is a lethal disease of New Zealand flax (Phormium tenax) and mountain flax (P. cookianum), which is only present in New Zealand (first found in 1908). It is transmitted by a planthopper (Oliarus atkinsoni). Papaya dieback can be a devastating disease in Queensland, Australia (first found in 1922). Australian grapevine yellows was first reported in Australia in 1975. No vectors have been identified for the later two diseases. The authors noted that further studies are needed on the possible origin, host range, vector transmission of 'Candidatus Phytoplasma australiense' and the relationships between New Zealand and Australian populations.


Additional key words: taxonomy
PCR detection of mal secco (Deuterophoma tracheiphila)

Deuterophoma (Phoma) tracheiphila (EPPO A2 quarantine pest) is a serious disease of citrus which may remain latent in the nursery. So far, reliable diagnostic methods for early detection in plant material were not available. A PCR method has been developed in Italy to detect D. tracheiphila specifically in symptomatic or asymptomatic plant material. The authors stressed that this detection method which is fast and can handle a large number of samples will be particularly useful for certification and quarantine purposes.


Details on Unaspis vanonensis in Côte d'Azur (FR)

In France, Unaspis vanonensis (EPPO A2 quarantine pest) was introduced in Côte d'Azur (coastal strip of Provence-Alpes-Côte d'Azur region) in 1964, and rapidly became an important pest of citrus. In Côte d'Azur, 20 ha of citrus orchards are still present, but are submitted to high pressure from urban development. In addition, many citrus trees can be found in private gardens. They generally constitute reservoirs for citrus pests, and in particular for U. vanonensis. Despite compulsory treatments (chemical treatments) against this scale, U. vanonensis continues to cause serious problems. In the 1980s, several attempts of biological control were made, essentially with Aphytis vanonensis and to a lesser extent with Coccobius fulvus. In 1997, a survey was carried out to identify the species of natural enemies present. The following species were found: Encarsia citrina, Aphytis melinus, but no trace of Aphytis vanonensis was found. The authors pointed out that Aphytis vanonensis was found to be very effective when it was released in the 1980s, but to ensure its efficacy regular releases should be made.

Exotic palm weevils which may present a threat for southern countries

It may be recalled that *Rhynchophorus ferrugineus* (red palm weevil - Coleoptera: Curculionidae: Rhynchophorinae) has recently been introduced into Spain (see EPPO RS 96/096 and 97/010). It probably came in the 1990s on ornamental palms, damage was observed in 1993 and the presence of this species was reported in 1996. This was the first record of *R. ferrugineus* in Europe. This species originating in south-east Asia and Oceania, has also been introduced in the last decades into the Near East region. In Spain, serious damage has been observed on *Phoenix canariensis*. Presence of the weevil is still limited to the coastal area from Motril (Granada) to Nerja (Málaga) in Andalucía, and the pest is under eradication. Studies on possible control methods are being carried out in Spain, and Barraco *et al.* (1998) have found that fipronil can provide a good larval control in the laboratory. On the basis of laboratory, field observations and bibliography, Esteban-Durán *et al.* (1998) have reviewed the biological characteristics of various beetles of the Rhynchophorinae subfamily which could potentially become pests of palm trees in Spain and other countries of the European Union (more particularly southern countries). For each species, a brief description of adult, egg, larva and pupa is given, as well as a list of host plants and a geographical distribution. The authors concluded that considering host range, geographical distribution and potential harmfulness, the most threatening species are *R. ferrugineus* and *R. palmatum*. Other species like *Dynamis borassi*, *R. quadrangulus* and *Matemasius cinnamominus* were considered of little importance. *R. phoenicis*, *R. vulneratus* and *R. bilineatus* were considered of intermediate importance for Spain, but it is stressed they can cause very serious damage on their host palms, respectively in sub-Saharan Africa, Asia and Papua New Guinea. The authors felt that the current phytosanitary requirements for palm imports are not adequate to prevent possible introductions of such insect pests. The detection of living stages inside plants by visual inspection is very difficult. In addition, young plants can be infested by eggs or larvae which are difficult to see. The authors suggested that these insects could be effectively detected by using sound detectors on plants kept in quarantine.

### *Rhynchophorus ferrugineus*

**HOST PLANTS:** *Areca catechu*, *Arenga pinnata*, *Borassus flabellifer*, *Caryota maxima*, *C. cumingii*, *Cocos nucifera*, *Corypha gebanga*, *C. elata*, *Elaeis guineensis*, *Metroxylon sagu*, *Oreodoxa regia*, *Phoenix canariensis*, *P. dactylifera*, *P. sylvestris*, *Sabal umbraculifera*, *Washingtonia* sp. etc. It can also attack *Agave americana*, *Saccharum officinarum*.

**GEOGRAPHICAL DISTRIBUTION**

**EPPO region:** Egypt, Spain. Esteban-Durán *et al.* suggested that it is probably present in Algeria, Morocco and other countries in North Africa but this has not been confirmed by the official authorities.

**Asia:** Bangladesh, Cambodia, China, India, Indonesia, Irak, Iran, Japon, Laos, Malaysia, Myanmar, Pakistan, Philippines, Qatar, Saudia Arabia, Sri Lanka, Taiwan, Thailand, United Arab Emirates, Vietnam.

**Africa:** Egypt.
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**Oceania:** Australia (doubtful), Papua New Guinea, Solomon Islands.

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**Rhynchophorus palmatum**


**GEOGRAPHICAL DISTRIBUTION:**

*North America:* Mexico.

*South America:* Argentina, Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Surinam, Uruguay, Venezuela.

*Caribbean and Central America:* Belize, Costa Rica, Cuba, Dominica, El Salvador, Grenada, Guadeloupe, Guatemala, Honduras, Martinique, Nicaragua, Panama, Puerto Rico, St Vincent, Trinidad and Tobago.

**NOTE:** It must be stressed that *R. palmatum* is the vector of the nematode *Rhadinaphelenchus cocophilus,* causal agent of the red ring disease which has a very serious economic impact on cultivated palm trees in South and Central America.

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**Rhynchophorus phoenicis**

**HOST PLANTS:** *Borassus* spp., *Elaeis guineensis, Hyphaene* spp., *Phoenix* spp. (including *P. dactylifera*).

**GEOGRAPHICAL DISTRIBUTION:** tropical and equatorial Africa (from Senegal to Ethiopia, and to South Africa). The authors mentioned speculation about a possible introduction into South America.

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**Rhynchophorus vulneratus**

**HOST PLANTS:** *Areca catechu, Arenga saccharifera, Cocos nucifera, Corypha gebanga, Elaeis guineensis, Livistona chinensis, Metroxylon sagu, Oncosperma tigillaria, O. horrida, Oreodoxa regia.*

**GEOGRAPHICAL DISTRIBUTION:**

*Asia:* Indonesia (Borneo, Java, Sumatra and other islands), Japan (south), Malaysia, Philippines, Thailand.

*Oceania:* Papua New Guinea.
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*Rhynchophorus bilineatus*

**HOST PLANTS:** *Cocos nucifera, Metroxylon sagu, M. solomonense.***

**GEOGRAPHICAL DISTRIBUTION:**

*Asia:* Indonesia (Buru, Sulawesi, Maluku).

*Oceania:* Papua New Guinea, Solomon islands.


*Boletín de Sanidad Vegetal, Plagas, 24(1), 23-40*


*Boletín de Sanidad Vegetal, Plagas, 24(1), 23-40*

CABI maps no. 258 & 259.

**Additional key words:** risk assessment

**Computer codes:** RHYCFE, RHYCSP, ES

99/013 Localization of tobacco ringspot nepovirus in *Xiphinema americanum sensu stricto*

An indirect immunofluorescent technique has been developed in USA to localize tobacco ringspot nepovirus (EPPO A2 quarantine pest) in the vector *Xiphinema americanum sensu stricto*. This method is rapid and tomato ringspot nepovirus can be visualized in retention regions of the nematode. In addition to the fact that the detection of the virus is highly correlated with actual virus transmission, the authors noted that this method could provide an efficient tool to study the transmission process of viruses by *X. americanum*.


**Additional key words:** detection

**Computer codes:** TRSV, XIPHAM

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Comments on the *Xiphinema americanum* group

A paper by Luc *et al.* (1998) synonymizes several species within the *Xiphinema americanum* group, and excludes some species from it. The authors conclude that there are 34 valid species and 3 species *inquirendae*, and a full list of these species is given. They also define the characteristics of the group.

EPPO note: this does not change the EPPO view that members of this group are only of quarantine significance because of their ability to transmit quarantine viruses and that the only members which have this ability are populations from North America of *Xiphinema americanum* sensu stricto, *X. californicum*, *X. bricolense* and *X. rivesi*.


**Additional key words:** taxonomy

**Computer codes:** XIPHAM

News from the SPS Committee: 'Official control' in Japan

According to information from the IPPC Secretariat, the USA made a submission to the SPS Committee of WTO at its meeting of 1998-09-15/16. This indicated satisfaction that the list of non-quarantine pests of Japan (currently identifying 36 pests, mostly common storage pests) is proposed to be extended by 27 additional pests. All these non-quarantine pests are not subject to phytosanitary measures if intercepted on commodities arriving in Japan. Nevertheless, the USA notes that there are many other widely distributed pests in Japan, not included in the list of non-quarantine pests, which are subject to phytosanitary measures if intercepted. The USA considers that this severely limits trade for certain commodities (especially lettuce). Japan considers that certain of these pests are quarantine pests because they are being officially controlled. It is understood that this 'official control' consists of government advice to farmers concerning the timing and size of pest appearances and outbreaks, and their control. The USA believes that this interpretation is inconsistent with the meaning and intent of the IPPC definition. In earlier discussions of 'official control' within EPPO, it has not been envisaged that this concept could be extended in the manner suggested by Japan. The use of this term will be discussed by the forthcoming IPPC Working Group on the glossary of Phytosanitary Terms.

**Source:** IPPC Secretariat, 1999-01.
A new quarantine station for woody plants was inaugurated on 1998-11-20. This station is located near Clermont-Ferrand (Puy de Dôme, Auvergne region) and has been in operation since 1997. It functions under the French National Laboratory for Plant Protection but its technical operation is ensured by the Plant Protection Service. Its main activities relate to quarantine and the phytosanitary status of material imported into France. The station also take part in national monitoring for nursery pests, in the preparation of strategies and diagnostic protocols for quarantine pests (including the maintenance of a collection of quarantine pests), and in the progress of regulations.

It is composed of laboratories, glasshouses and nurseries. A pre-quarantine facility, testing facilities and a humid cold chamber to maintain dormant material coming from the Southern hemisphere prior to planting or grafting are also available.

The plant species concerned are mainly fruit trees, ornamental woody species, forest trees, small fruits, grapevine. In 1998, 253 samples of apple, apricot, cherry, conifers, peach, pear, plum and raspberry from various origins entered the station on derogation. 600 tests on the indicator GF305 were carried out in the glasshouse for various crops (apricot, cherry, plum, peach, almond) and more than 100 on 4 indicator plants in the nursery. Concerning testing, 351 molecular tests have been carried out on *Malus*, *Pyrus* and *Prunus*, respectively for apple proliferation, pear decline and apricot chlorotic leafroll phytoplasmas, 465 serological tests for CLSV, PNRV, PDV and ApMV, and 311 isolations of bacteria on fruit or ornamental species.

The address of the quarantine station is as follows:

Station de quarantaine des végétaux ligneux
Site de Marmilhat
B.P. 45
63370 LEMPDES
Tél: (33) 4 73 42 16 53
Fax: (33) 4 73 42 16 59

Source: EPPO Secretariat, 1998-12.
Training course for plant protection inspectors

The Plant Health and Seeds Inspectorate of the Ministry of Agriculture, Fisheries and Food, UK, intends to run another 10-day training course in England in April 2000. This training course is intended for plant protection inspectors. The cost of the course is likely to be around 2,300 GBP (including meals and accommodation). For further details, please contact:

James Goodford  
Ministry of Agriculture, Fisheries and Food  
Plant Health and Seeds Inspectorate  
Room 346, Foss House, King's Pool  
1-2 Peasholme Green  
York, YO1 7PX  
UK  
Tel: +44 1904 455170 - Fax: +44 1904 455197  
E-mail: J.Goodford@ph.maff.gov.uk

Source: Ministry of Agriculture, Fisheries and Food of UK, 1998-12.

Additional key words: training course

The EPPO/CABI book of Distribution Maps of Quarantine Pests for Europe is now on sale

The book 'Distribution Maps of Quarantine Pests for Europe', edited by I.M. Smith (EPPO) and L.M.F. Charles (CABI) has just been published. It is an essential companion volume to Quarantine Pests for Europe (2nd edition) and Illustrations of Quarantine Pests for Europe. It provides updated geographical distribution on the 350 quarantine pests listed by EPPO and the European Union. A map is provided for each pest showing the current world distribution graphically. This is supported by a list of the countries and provinces in which the pest has been recorded with a coded indication of its current status. 'Distribution Maps of Quarantine Pests for Europe' is available from CABI at 75.00 GBP.

CAB International  
Wallingford, Oxon OX10 8DE, UK  
Tel: +44 1491 832111 - Fax: +44 1491833508  
E-mail: cabi@cabi.org

Source: EPPO Secretariat, 1999-01
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The EPPO Web Site (www.eppo.org) is regularly updated, and new features are constantly been added to it:

• PQR can be directly downloaded.
• EPPO News is available in colour.
• The section on the latest EPPO meetings is being updated regularly so that topics discussed during Panel meetings, Conferences and Workshops can be viewed almost in real time.
• The EPPO Calendar of meetings is being modified whenever changes in dates or meeting place occur.
• The list of publications shows the latest EPPO/CABI book of Maps (see above).
• More and more visual material is being included

Source: EPPO Secretariat, 1999-01