ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO

Reporting

Service

Paris, 2003-05-01 **Reporting Service 2003, No. 05**

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2003/067 New data on quarantine pests and pests of the EPPO Alert List

By browsing through the literature, the EPPO Secretariat has extracted the following new data concerning quarantine pests and pests included on the EPPO Alert List. The situation of the pest concerned is indicated in bold, using the terms of ISPM no. 8.

- **New geographical records**

Citrus huanglongbin or citrus greening caused by *Liberibacter asiaticus* (EPPO A1 quarantine pest) is reported in Papua New Guinea. It has been detected in one location (Sandaun Province, formerly West Sepik) near the border with Indonesia (Promed, 2003). The Australian Quarantine Inspection Service (AQIS) has confirmed the presence of the pathogen in Papua New Guinea. AQIS had also detected *L. asiaticus* in the Indonesian part of the island (Irian Jaya) in 1999 and in East Timor in 2000 which is also a new record for the EPPO Secretariat (AQIS web site). Situation of *L. asiaticus* in Papua New Guinea: **Present, found in Sandaun Province**. Situation of *L. asiaticus* in East Timor: **Present, no details**.

Studies on the presence of *Phytophthora* species were done in southern Sweden on 32 oak stands (27 with predominantly declining trees, 5 with predominantly healthy trees). *Phytophthora quercina* (EPPO Alert List) was found in 10 of the 27 declining stands. *P. cactorum* and *P. cambivora* were recovered from one stand each. No *Phytophthora* species were found in healthy oak stands. It is felt that *P. quercina* is widespread in southern Sweden and that it could be one of the factors involved in oak decline. This is the first report of *P. quercina* in Sweden. This paper from Jönsson *et al*. (2003) also mentions the presence of *P. quercina* in Belgium, Serbia, and United Kingdom which are new records according to the EPPO Secretariat. Situation of *P. quercina* in Sweden: **Present, widespread in the south**.
Situation of *P. quercina* in Belgium, Serbia and Montenegro, and United Kingdom: **Present, no details.**

- **Detailed records**

Incursions of *Anastrepha ludens* (EPPO A1 quarantine pest) are reported in USA: California (Valley Center) and Texas; eradication programmes are being applied (APHIS, 2003). In Florida, larvae were found in Pinellas county in May 2003 on *Capsicum pubescens* (University of Florida Pest Alert, 2003).

A few adults of *Anastrepha serpentina* were trapped in January 2003 in grapefruit orchards and various citrus trees in private gardens, in the Lower Rio Grande Valley of Texas, US. Eradication measures are being applied (NAPPO - Official Pest Notifications, 2003).

Globodera rostochiensis (EPPO A2 quarantine pest) has been found in one potato field in Steuben County, New York, US. This is the first time since 1986 that the nematode has been found outside the quarantine area. So far, *G. rostochiensis* remains confined to portions of 9 counties within the State of New York (NAPPO pest Alert, 2003)

A US isolate of *Pepino mosaic potexvirus* (EPPO Alert List) has been characterized and its genome sequenced. So far, the virus has been detected in tomato samples from Arizona, California, Colorado, Florida, Oklahoma and Texas (see also EPPO RS 2001/158). This confirms the presence of *Pepino mosaic potexvirus* in USA (Maroon-Lango *et al*., 2003).

More than 100 suspect cultures of *Ralstonia solanacearum* (EPPO A2 quarantine pest) were isolated from diseased potato plants from different regions of Russia in 2001-2002, and studied to identify the races and biovars present. As a result, 37 strains were considered as *R. solanacearum* race 1 and 59 strains as race 3 (of which 51 were determined as race 3 biovar 2). This confirms the presence of *R. solanacearum* race 3 biovar 2 in Russia. It is noted that brown rot can cause severe losses in potato and tomato in some regions of Russia, but no details are given on its distribution within the country (Matveeva *et al*, 2003).

- **New host plants**

Pantoea stewartii (EPPO A2 quarantine pest) was detected in the weed *Setaria lutescens*, which could act as an alternative host of the bacterium (Esker *et al*., 2003).

- **Epidemiology**

In the Lower Rio Grande Valley of Texas (US), 4 periods of cold from 1951 to 1989 drastically reduced the area of commercial citrus, as well as the number of trees affected by citrus psorosis (EU Annexes). In addition, the use of a new psorosis-free cultivar of grapefruit (cv. Rio Red) contributed to the reduction of disease incidence. However, during the past 6 years, more symptoms of psorosis were observed in the field and pattern of infection seemed to follow flood-irrigated rows, both observations suggesting a natural spread of psorosis. Examination of sections of roots and of soil collected from affected trees, revealed the presence of an *Olpidium*-like fungus with resting spores. Further studies will be done on the possible role of this type of fungus in the natural transmission of citrus psorosis (Miao *et al*., 2003).

- **Aetiology**

Since 1980, massive mortality of oak trees (more than 200,000 per year) has been observed in western coastal areas of Honshu, Japan. This disorder was formerly included as ‘fungal oak disease’ on the EPPO Alert List. Many ambrosia beetles (*Platypus quercivorus*) were found on stems of dead trees, but infested trees were not always killed. A new fungal species called *Raffaelea quercivora* sp. nov. (an anamorphic Ascomycete) was isolated from discoloured sapwood, necrotic inner bark, beetle body surfaces and galleries. Inoculation tests confirmed

its pathogenicity to *Quercus serrata* and *Q. crispula*. It is suggested that the extensive mortality of oaks observed in Japan is caused by *R. quercivora* and its vector *P. quercivorus* (Ito *et al*., 2003). Considering the high mortality on oaks observed in Japan, the EPPO Secretariat decided to add again this disease to the EPPO Alert List.

Source:

Esker, P.D.; Aalsburg, J.; Nutter Jr, F.W. (2003) Survey of alternative hosts for *Pantoea stewartii*, causal organism of Stewart's disease in Iowa. Abstract of a paper presented at the APS Annual Meeting (Charlotte, US, 2003-08-09/13). **Phytopathology 93(6), supplement, S24.**

Ito, S.; Murata, M.; Yamada, T. (2003) Massive mortality of Fagaceous trees in Japan. Abstract of a paper presented at the APS Annual Meeting (Charlotte, US, 2003-08-09/13). **Phytopathology 93(6), supplement, S102.**

Jönsson, U.; Lundberg, L.; Sonesson, K.; Jung, T. (2003) First records of soilborne *Phytophthora* species in Swedish oak forests. **Forest Pathology, 33(3), 175-179.**

Maroo-Lango, Guaragna, M.A.; Jordan, R.L.; Bandla, M.; Marquardt, S. (2003) Detection and characterization of a US isolate of Pepino mosaic potexvirus. Abstract of a paper presented at the APS Annual Meeting (Charlotte, US, 2003-08-09/13). **Phytopathology 93(6), supplement, S57.**

Matveeva, E.V.; Pekhtereva, E.Sh.; Nikolaeva, E.V.; Schaad, N.W. (2003) Pathogenicity, virulence, and phenotypic diversity of *Ralstonia solanacearum* strains in potato in Russian Federation. Abstract of a paper presented at the APS Annual Meeting (Charlotte, US, 2003-08-09/13). **Phytopathology 93(6), supplement, S58.**

Miao, H.; Seyran, M.; deGraca, J.V.; Skaria, M. (2003) Circumstantial evidence of natural spread of *Citrus psorosis virus* in Texas. Abstract of a paper presented at the APS Annual Meeting (Charlotte, US, 2003-08-09/13). **Phytopathology 93(6), supplement, S61-62.**

INTERNET

APHIS - Pest Detection and Management Programs. Weekly Notice, April 28, 2003. http://www.aphis.usda.gov/ppq/ep/reports/weekly/weekly4_28_03.pdf

Australian Quarantine and Inspection Service Web site. AQIS keeps weather eye on citrus industry's Yellow Dragon' in PNG. http://www.affa.gov.au/ministers/truss/releases/02/02326wt.html

NAPPO Pest Alert – Official notifications - USA. Golden nematode *Globodera rostochiensis*, detection in Fremont, New York – 2003-06-12. http://www.pestalert.org

NAPPO Pest Alert - Official Pest Notifications – USA. Sapote fruit fly, *Anastrepha serpentina* (Wiedemann), quarantine in Texas – 2003-02-07. http://www.pestalert.org

ProMED posting of 2003-05-27. Citrus Huanglongbin – Papua New Guinea (Sandaun). http://www.promedmail.org

University of Florida Pest Alert. Mexican fruit fly larvae and adult, 2003-06-19. http://extlab7.entnem.ufl.edu/PestAlert/

Additional key words: new record, detailed record, new host plant, epidemiology, aetiology

Computer codes: ANSTLU, ANSTSE, CIRSV0, ERWIST, HETDRO, LIBEAS, PEPMV0, PHYTQU, JP, PG, RU, SE, US

EPPO *Reporting Service*

2003/068 New finding of *Erwinia amylovora* in Slovenia

The NPPO of Slovenia has recently informed the EPPO Secretariat of a new finding of *Erwinia amylovora* (EPPO A2 quarantine pest). In July 2001, a single find had been made on a old pear tree and 2 nearby trees. As all infected trees had been destroyed and no other finds were made, the disease was provisionally considered as eradicated (see EPPO RS 2001/120).

After the first finding of fireblight at one location in July 2001 the disease was found again during a systematic survey carried out in 2002 in private gardens situated in the close vicinity of the infected area in the northern part of Slovenia. On the basis of the official survey programme fireblight symptoms were notified again on 20th May 2003. On the same day official samples were taken and were found positive. The first new focus was found in the town Skofja Loka which is located 13 km to the south of the first finding in Naklo. The focus and 1 km buffer zone are considered as an infected area, where immediate destruction of all host plants showing symptoms is ordered to be executed by burning of such plants at the place of growing or in its nearest vicinity. An intensive survey programme is imposed in a 5 km buffer zone and monitoring of host plants in a 10 km buffer zone.
Notwithstanding the strict measures taken in every focus, 73 new foci were determined in the period 26th May – 18th June 2003. Since the forecasting service recorded 3-4 warnings of fireblight in the beginning of May, it is considered that the outbreak is a result of blossom infection. Stormy weather and the appearance of exudate has enabled further spread. A map of the controlled area can be viewed on Internet (http://www.bf.uni-lj.si/ag/fito/Erwinia/erwinia030618.jpg). Surveys of other intensive plantations in Slovenia (in total: 2659 ha of apple and 240 ha of pear) are still in the process.

The situation of *E. amylovora* in Slovenia can be described as follows: **Present, found in the northern part of Slovenia, under official control.**

Source: **NPPO of SI, 2003-06-18**

Additional key words: detailed record **Computer codes:** ERWIAM, SI

2003/069 Results of the 2002 survey: *Erwinia amylovora* does not occurs in Slovakia

As in 2001 (see EPPO RS 2002/076) a survey for *Erwinia amylovora* (EPPO A2 quarantine pest) has been carried out in Slovakia. A total of 3,648,260 plants covering approximately 4527 ha was inspected. Inspections were done mainly on apple, quince and pear growing in nurseries and intensive orchards. 69 suspect plants were observed (57 apple trees, 5 quince trees, 5 *Crataegus* and 2 *Cotoneaster* plants) and 33 samples were sent to the laboratory for further testing. All results were negative.
The situation of *E. amylovora* in Slovakia can be described as follows: **Absent, confirmed by surveys.**

Source: **NPPO of Slovakia, 2003-06.**

Additional key words: absence **Computer codes:** ERWIAM, SK

2003/070 Surveys carried out in Estonia: absence *of Bursaphelenchus xylophilus* and *Synchytrium endobioticum*

The NPPO of Estonia recently informed the EPPO Secretariat of the results of surveys carried out in 2002 for *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) and *Synchytrium endobioticum* (EPPO A2 quarantine pest).

Bursaphelenchus xylophilus
The survey for *B. xylophilus* was carried out for the first time in Estonia. 377 samples were collected in storage places of wood-processing companies which handle imported and domestic wood, and in surrounding forests in all 15 Estonian districts. All samples were analysed in the laboratory using the Baermann funnel method. *B. xylophilus* was not found.
The situation of *B. xylophilus* in Estonia can be described as follows: **Absent, confirmed by survey.**

Synchytrium endobioticum
In the past, *S. endobioticum* had been found in 3 districts: Rapla district (1 site) in 1949, Võru district (10 sites) in the 1970s and Valga district (2 sites) in 1985. In all cases, phytosanitary measures were immediately taken and the disease was eradicated. In 2002, 26 samples were taken from all previously infected sites and their vicinity. In addition, random samples were taken in other districts. All samples were analysed in the laboratory and *S. endobioticum* was not found.

The situation of *S. endobioticum* in Estonia can be described as follows: **Absent, found in the past but now declared eradicated, confirmed by survey.**

Source: **NPPO of Estonia, 2003-05-05.**

Additional key words: absence, eradication **Computer codes:** BURSXY, SYNCEN, EE

2003/071 First outbreak of *Citrus tristeza closterovirus* near Siracusa, Sicilia (IT)

During surveys for the selection of superior old citrus lines done near Siracusa (Sicilia, Italy), trees in several blocks of mandarin (*Citrus reticulata* cvs. Fortune, Nova), Satsuma (*C.unshiu*) and grapefruit (*C. paradisi* cv. Marsh) showed stunting, decline, dieback, reduction of fruit size, and often pinholing near the bud-union line. As these symptoms are often associated with *Citrus tristeza closterovirus* (CTV - EPPO A2 quarantine pest), further tests were done. Young shoots were collected from 600 Fortune, 300 Nova, 400 Satsuma and 20 Marsh grapefruit, and tested by DAS-ELISA and immunoprinting ELISA using CTV polyclonal antibodies. All samples tested positive. Total RNA was extracted from 50 of these plants (25 Fortune, 15 Nova, 5 Satsuma, 5 grapefruit) and tested by RT-PCR. The presence of CTV was confirmed.
Studies were done to trace the history of plants growing in the affected blocks. All trees had been propagated from budwood most probably infected which had been illegally imported from Spain 10 years ago. It is estimated that in the area of Siracusa approximately 10,000 trees are now infected, with some evidence suggesting that natural spread is occurring. Additional surveys are being done better to estimate the incidence of the disease, to verify its dissemination by aphid vectors and to characterize virus strains present in the area.
Previously, only scattered CTV-infected trees have been detected in Italy. Therefore this is the first report of a significant outbreak in a citrus-growing area. It is felt that CTV represents a major threat to the Italian citrus industry. It is recalled that, in Sicilia, citrus is grown on 100,000 ha mostly on susceptible sour orange rootstocks.

The situation of *Citrus tristeza closterovirus* in Italy can be described as follows: **Present, found in the area of Siracusa, Sicilia. In other parts of Italy, it has been found erratically and is not established. Under official control.**

Source: Davino, S.; Davino, M.; Sambade, A.; Guardo, M.; Caruso, A. (2003) The first *Citrus tristeza virus* outbreak found in a relevant citrus producing area of Sicily, Italy.
Plant Disease, 87(3), p 314.

Additional key words: detailed record **Computer codes:** CTV000, IT

2003/072 Additional information on *Citrus tristeza closterovirus* in Algeria

As reported in EPPO RS 2003/052, *Citrus tristeza closterovirus* (CTV – EPPO A2 quarantine pest) was found in 2 citrus multiplication plots at the experimental stations of Béni Tamou and Chébli (Wilaya of Blida). The NPPO of Algeria added that specific eradication measures have been applied on the 2 isolated foci. It considers that CTV is now eradicated. Official surveys are still being implemented to verify the absence of the virus in the plots concerned and their vicinity by using standardized test methods, before phytosanitary measures can be completely lifted in the quarantine area.

Source: NPPO of Algeria, 2003-06-18.

Additional key words: detailed record, eradication **Computer codes:** CTV000, DZ

2003/073 Finding of *Impatiens necrotic spot tospovirus* in Finland

The NPPO of Finland recently informed the EPPO Secretariat of a finding of *Impatiens necrotic spot tospovirus* (INSV - EPPO A2 quarantine pest). INSV was found in April 2003 in pot plants of *Lobelia richardii* at a nursery producing pot plants. The most likely pathway of introduction was propagation material which was maintained from 2002. Eradication measures were taken (all infected plants were destroyed and appropriate treatments were applied). Earlier incursions of this virus were reported in 2001 and 2002 (see EPPO RS 2001/201 and 2002/169).
The situation of *Impatiens necrotic spot tospovirus* in Finland can be described as follows: **Present, incursions are occasionally reported under glasshouse, under eradication.**

Source: NPPO of FI, 2003-05-09.

Additional key words: phytosanitary incident **Computer codes:** INSV00, FI

2003/074 Isolated finding of *Pepino mosaic potexvirus* in Finland

The NPPO of Finland recently informed the EPPO Secretariat that *Pepino mosaic potexvirus* was found in March 2003 in tomatoes in a glasshouse producing tomato fruits. The source of this introduction remains unknown. Eradication measures were applied and included the destruction of infected plants and appropriate treatments of the premises. This virus had also been found on glasshouse tomatoes in 2001 (EPPO RS 2001/088).
The situation of *Pepino mosaic potexvirus* in Finland can be described as follows: **Present, isolated findings made in 2001 and 2003 on glasshouse tomatoes, under eradication.**

Source: **NPPO of FI, 2003-05-15.**

Additional key words: detailed record **Computer codes:** PepMV0, FI

2003/075 Detection of *Pepino mosaic potexvirus*

In Spain, an RT-PCR assay combined with RFLP was developed to detect specifically *Pepino mosaic potexvirus* (EPPO Alert List) and differentiate between isolates. This technique was used successfully in tomato samples and in weeds (*Amaranthus, Malva parviflora, Nicotiana glauca, Solanum nigrum, Sonchus oleraceus*). This confirmed the presence of the virus in these weed species. In RFLP studies, 3 different types of isolates were obtained. The authors concluded that RT-PCR combined with RFLP is a useful tool which will help to understand the epidemiology and distribution of PepMV, as well as the variability of its isolates.

Source: Martínez-Culebras, P.V.; Lázaro, A.; Abad Campos, P.; Jordá, C. (2002) A RT-PCR assay combined with RFLP analysis for detection and differentiation of isolates of *Pepino mosaic virus* (PepMV) from tomato.
European Journal of Plant Pathology, 108, 887-892.

Additional key words: diagnostics **Computer codes:** PepMV0

2003/076 *Potato spindle tuber pospiviroid* is no longer found in Australia

Potato spindle tuber pospiviroid (PSTVd – EPPO A2 quarantine pest) had been detected previously in Australia. Outbreaks were found in potato breeding programmes in Victoria and New South Wales in 1982 and were subsequently eradicated. PSTVd was also detected and eradicated in breeding tomatoes in Northern Territory. In Western Australia, the pathogen was detected and subsequently eradicated from the affected property. The most recent detection (June 2001) was in a glasshouse of tomatoes in New South Wales (2 plants on 1 farm). Surveys of glasshouse tomatoes have recently been finalized in New South Wales. 500,000 tomato plants grown on 15 properties have been surveyed over the last 12 months, and no symptoms were observed. On the farm where the 2 infected plants had been found, monthly inspections failed to detect the disease. It is considered that the outbreak in Western Australia has been eradicated and that PSTVd is no longer present in Australia.
The situation of PSTVd in Australia can be described as follows: **Absent, reported in the past but no longer found.**

Source: Potato spindle tuber, tomato – Australia (NSW) 1 & 2, ProMEd postings of 2003-06-18 & 2003-06-20.
http://www.promedmail.org

Department of Agriculture, Fisheries and Forestry - Australia
Potato Spindle Tuber Viroid
http://www.dpie.gov.au

Additional key words: eradication **Computer codes:** PSTVD0, AU

EPPO *Reporting Service*

2003/077 Absence of *Potato spindle tuber pospiviroid* in Canada

The Canadian Food Inspection Agency (CFIA) has recently informed the EPPO Secretariat about the status of *Potato spindle tuber pospiviroid* (PSTVd - EPPO A2 quarantine pest) in Canada.

There were occurrences of PSTVd in Canada in the 1950s. At that time, several actions were taken, mostly through the seed potato certification programme to eradicate PSTVd from Canada. This included in particular laboratory testing of all nuclear stock seed potatoes, and inspections of other stages followed by testing in case of suspicion. As a result, since 1980, PSTVd has never been found in Canadian seed potatoes.

In the Provinces of Prince Edward Island and New Brunswick, PSTVd has been considered officially eradicated since 1989, on the basis of regular surveys. More recently, surveys confirmed its absence from 3 other provinces: Alberta, British Columbia, and Saskatchewan (De Boer *et al*., 2002). In these 3 provinces, 400 leaves were randomly collected from 201 and 225 fields of seed potatoes respectively in 1999 and 2000. Composite samples of 100 leaves were tested (by dot-blot) for PSTVd and all results were negative. Considering the negative results obtained in the laboratory and the failure to detect the disease in field inspections for many years, it was felt that Alberta, British Columbia, and Saskatchewan should be considered as free from PSTVd.

Additional surveys are ongoing in other provinces (Nova Scotia, Ontario, Newfoundland, Manitoba, Québec) on seed and ware potatoes, in an effort to declare PSTVd officially eradicated from Canada. So far, all results obtained from these Provinces are negative. CFIA also pointed out that PSTVd has never been found on tomato in Canada.

The situation of PSTVd in Canada can be described as follows: **Absent, reported in the 1950s but no longer found, ongoing surveys are being performed in view of an official declaration of eradication.**

Source: **Canadian Food Inspection Agency, Plant Health Division, 2003-06-16.**
De Boer, S.H.; Xu, H.; DeHaan, T.L. (2002) *Potato spindle tuber viroid* not found in western Canadian provinces.
Canadian Journal of Plant Pathology, 24: 372-375.

Additional key words: absence **Computer codes:** PSTVD0, CA

2003/078 Isolated finding of *Phytophthora ramorum* in British Columbia, Canada

In June 2003, during a traceback study, *Phytophthora ramorum* (EPPO Alert List) was found in a rhododendron plant in a nursery in British Columbia, Canada. This study was initiated following a notification sent by USA concerning a positive find in a US nursery which had shipped material to Canada. In the affected nursery, strict official measures are being taken to prevent any further spread. This is the first record of *P. ramorum* in Canada.
The situation of *P. ramorum* in Canada can be described as follows: **Present, reported in June 2003 on 1 *Rhododendron* plant in a nursery of British Columbia, under eradication**.

Source: Canadian Food Inspection Agency News Release (2003-06-13) Sudden oak death discovered at B.C. nursery
http://www.inspection.gc.ca/english/corpaffr/newcom/2003/20030613e.shtml

Additional key words: new record **Computer codes:** PHYTRA, CA

2003/079 *Phytophthora ramorum* found on *Rhododendron* in Washington State (US)

On 2003-06-05, the presence of *Phytophthora ramorum* (EPPO Alert List) was officially confirmed in Washington State, US. *P. ramorum* was found in 4 Rhododendron (out of 261 tested) at a nursery in south King's County, Washington State. This detection was made as a result of tracing studies of plants sent by another nursery in Oregon where the disease had been found. In addition to this nursery, 12 nurseries were also surveyed with negative results. During a US nation-wide survey, more than 1,000 samples had been collected with only one positive find in Oregon. Phytosanitary measures are being taken to continue to delimit the extent of the disease in nurseries and prevent any further spread.

Source: NAPPO Pest Alert – Official notifications.
Sudden Oak Death (SOD), *Phytophthora ramorum*, first detection in Washington State – 06/12/2003. http://www.pestalert.org

Additional key words: detailed record **Computer codes:** PHYTRA, US

2003/080 Introduction of *Agrilus planipennis* (Emerald Ash Borer) into North America: addition to the EPPO Alert List

In June 2002, an exotic beetle was observed on dying *Fraxinus* trees in southeastern Michigan and was identified in July 2002 as *Agrilus planipennis* (Coleoptera: Bupestridae) a species of Asian origin. Significant tree mortality was reported in Michigan on *Fraxinus pennsylvanica, F. americana* and *F. nigra*. Shortly after this first finding, the pest was discovered in Ontario (Canada). In February 2003, it was also found feeding in northwestern Ohio (Lucas county). Surveys suggested that the pest has been established in southeastern Michigan for approximately 5 to 10 years, and in Ontario at least for 4 to 5 years. It is suspected that it has entered the USA at Detroit, in dunnage from cargo ships. Considering that *A. planipennis* was a serious threat to *Fraxinus*, both in urban and forested sites, phytosanitary measures are being applied in USA and Canada to prevent any further spread of the pest and, if possible, eradicate it. These measures include: restrictions on the movement of firewood of all species, and of ash nursery stock, ash trees, logs, lumber, wood, wood chips or bark chips outside the areas under quarantine. The NPPO of Sweden attracted the EPPO Secretariat's attention to this potential new problem and suggested that *A. planipennis* could usefully be added to the EPPO Alert List.

*Agrilus planipennis (*Coleoptera: Buprestidae – Emerald Ash Borer*)*

Why	*Agrilus planipennis* is an Asian species which has recently been introduced into North America (identified in July 2002) where it causes significant damage to ash trees (*Fraxinus* spp.) both in urban and forest environments. Phytosanitary measures are applied in these areas to prevent any further spread of this insect. The NPPO of Sweden also suggested that this pest could usefully be added to the EPPO Alert List.
Where	**Asia**: China, Japan, Korea, Mongolia, Russia (Far East), Taiwan. **North America**: Canada (Ontario: Essex county), USA (Michigan: Livingston, Macomb, Oakland, Monroe, Washtenaw and Wayne counties; Ohio: Lucas county). It is suspected that *A. planipennis* entered the USA at Detroit, in dunnage from cargo ships.
On which plants	So far in North America, found only on *Fraxinus* (forest and ornamental species): *Fraxinus americana, F. chinensis, F. japonica, F. lanuginosa, F. mandshurica, F. pennsylvanica, F. nigra, F. rhynchophylla*. In the literature, other woody tree species are mentioned: *Ulmus davidiana* var. *japonica, Juglans mandshurica* var. *sieboldiana, Pterocarya rhoifolia, Ulmus propinqua*. No data is given on the susceptibility of ash species commonly growing in Europe (e.g. *F. excelsior, F. angustifolia*).
Damage	Adults (7.5 to 13.5 mm long with metallic emerald green elytra) emerge between mid-May and late June in China, similar observation has been made in Michigan and Ontario. Adults feed on leaves of host trees and these become irregularly notched. Eggs are laid singly in bark crevasses. First instar-larvae bore galleries through the bark to feed on the phloem. Larvae make long serpentine galleries (up to 26-32 mm long) into the sapwood which enlarge as they grow and which are filled with brownish sawdust and frass. Full-grown larvae overwinter during one or two seasons depending on environmental conditions. Pupation takes place in the spring at the end of a tunnel near the surface. Newly emerged adults stay in the pupal chamber about 8 to 15 days and then bore D-shaped (3-4 mm diameter) exit holes on trunk and branches. As larvae damage the vascular system, attacks of *A. planipennis* cause general yellowing and thinning of foliage, dying of branches, crown dieback, and eventually death of the tree

after 2 to 3 years of infestation. Basal sprouting and also the presence of woodpeckers may indicate wood-boring beetle activity. After 1 to 2 years of infestation, bark often falls off in pieces from damaged trees exposing the insect galleries. In Michigan, it is estimated that *A. planipennis* has killed millions of trees over the past few years (*F. pennsylvanica*, *F. americana* and *F. nigra*, as well as several horticultural varieties of ash). In Ontario, it is estimated that it has killed 9,000 to 10,000 ash trees. *A. planipennis* can kill trees of various size and condition (small trees e.g. trunk of 5 cm diameter to big mature trees).

Dissemination — Adults can fly at least small distances, but further studies are needed on natural dispersion. Infested plants and wood can spread the insect over long distances.

Pathway — Plants for planting, wood, wood packing material, wood chips, firewood of *Fraxinus* from areas or countries where *A. planipennis* occurs.

Possible risks — *Fraxinus* species are commonly grown in the EPPO region for forestry and amenity purposes. The introduction of *A. planipennis* into North America show that there are pathways to disseminate this pest outside its area of origin (again wood packing material is suspected as being a risky pathway for this type of pest). Significant tree mortality has been reported in North America. Control and detection of this type of wood-boring insect is difficult. More data is needed on its potential for establishment in Europe, but considering its area of origin and the area where it has been introduced, it seems likely that if introduced, *A. planipennis* would be able to survive at least in some parts of the EPPO region.

Source(s)

Canadian Food Inspection Agency. *Agrilus planipennis* Fairmaire – Emerald Ash Borer http://www.inspection.gc.ca/english/sci/surv/data/agrplae.shtml

Mecteau, M.; Marchant, K. (2003) Emerald Ash Borer in Essex County, Ontario. NAPPO Newsletter, June 2003, 4-5.

Michigan State University Extension – Emerald Ash Borer and Ash Decline by Dr D.L. Roberts http://www.msue.msu.edu/reg_se/roberts/ash/index.html

NAPPO Pest Alert. *Agrilus planipennis* Fairmaire 1888 – Exotic Emerald Ash Borer (EAB), *Agrilus planipennis*, reported in Michigan, United States and Ontario, Canada. http://www.pest.alert.org

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EPPO RS 2003/079

Panel review date - Entry date 2003-05

EPPO *Reporting Service*

2003/081 Introduction of *Diocalandra frumenti* into Islas Canarias (ES): addition to the EPPO Alert List

In March 1998, a new pest of palm trees, *Diocalandra frumenti* (Coleoptera: Curculionidae) was discovered on *Phoenix canariensis* at Maspalomas on the island of Gran Canaria (Islas Canarias, Spain). So far, it has not invaded new areas in Islas Canarias, but the affected zone in Maspalomas has increased since the first discovery. Larvae of *D. frumenti* bore galleries in the palms causing first yellowing of the fronds, and then collapse of the crown. This is the first report of this insect in this part of the world. Considering the threat it could represent to palm-growing countries around the Mediterranean Basin, the EPPO Secretariat felt that *D. frumenti* should be added to the EPPO Alert List.

*Diocalandra frumenti (*Coleoptera: Curculionidae - four-spotted coconut weevil)

Why	*Diocalandra frumenti* (syn: *Diocalandra stigmaticollis*) was observed for the first time in 1998 on *Phoenix canariensis* in the south of Gran Canaria (Islas Canarias, Spain). As this palm borer can cause damage to many palm species (including date palms and many ornamental species) it is felt that it could represent a threat to palm-growing countries around the Mediterranean Basin.
Where	**EPPO region**: Spain. Found in 1998 in the south of Gran Canaria, Islas Canarias (González Núñez *et al*., 2002). More data is needed on the severiy of the attacks on *P. canariensis*. **Africa:** Madagascar, Seychelles, Somalia, Tanzania (including Zanzibar). **Asia**: Bangladesh, India, Indonesia, Japan (Okinawa: Ryukyu archipelago; Moritomo, 1985), Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Taiwan, Thailand. **Oceania:** Australia (Northern Territory, Queensland), Guam, Palau, Papua New Guinea, Samoa, Solomon Islands. **South America**: Ecuador.
On which plants	Economically important palm species such as: *Cocos nucifera, Phoenix dactylifera, P. canariensis, Elaeis guineensis*. In the literature a large number of other palm species are mentioned, such as: *Archontophoenix alexandrea, Chrysalidocarpus lutescens, Howea belmoreana, Mascarena verchaffeltii, Phoenix loureirii, Phoenix roebelenii, Roystonea regia*.
Damage	Larvae of *D. frumenti* bore galleries in roots, petioles, inflorescences and fruits of palms. Gummy exudates are usually seen near the gallery entrance. Larvae cause premature yellowing and collapse of palm fronds, emergence holes in new and old fronds, premature shedding of fruits. Death of mature *P. canariensis* is reported from Australia. Eggs are laid in various sites: inflorescences, base of petioles or peduncles, in cracks near adventitious roots at the base of the stem. Larvae develop within the palm tree. Pupation takes place within the larval gallery but no cocoon is made. Adults are small (6-8 mm long), shiny black weevils with four large reddish to brownish-yellow spots on the elytra.
Dissemination	No data is available on natural spread, but adults can move over at least small distances. Exchange of infested plants or palms can ensure spread of the pest over long distances.
Pathway	Plants for planting, palms from countries where *D. frumenti* occurs.
Possible risks	Palm trees are grown around the Mediterranean Basin for fruit production (*P. dactylifera*) or ornamental purposes (*P. canariensis* and many other species). More data is needed on the economic impact of *D. frumenti*, in particular on date palms, but tree mortality is reported at least on *P. canariensis*. Control of *D. frumenti* is difficult because of its hidden mode of life. For the same reason, detection of the insect is difficult. The example of another serious palm borer *Rhynchophorus ferrugineus* recently introduced into Spain and

currently spreading in the Near East has shown that this type of insect is likely to be moved unnoticed on palm material.

Source(s) Anonymous (1968) CABI Distribution maps of pests, *Diocalandra frumenti*, Map no. 249. CABI, Wallingford, UK.

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EPPO RS 2003/080
Panel review date - Entry date 2003-05

2003/082 EPPO report on notifications of non-compliance (detection of regulated pests)

The EPPO Secretariat has gathered the notifications of non-compliance for 2002 received since the previous report (EPPO RS 2003/066) from the following countries: Algeria, Austria, Cyprus, Denmark, Finland, Germany, Guernsey, Hungary, Ireland, Israel, Italy, Lithuania, Norway, Poland, Slovenia, Spain, Sweden, Switzerland, United Kingdom. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets. When the occurrence of a pest in a given country is not known to the EPPO Secretariat, this is indicated by an asterisk (*).

The EPPO Secretariat has selected notifications of non-compliance made because of the detection of regulated pests. Other notifications of non-compliance due to prohibited commodities, missing or invalid certificates are not indicated. It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their notifications.

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Aleurothrixus floccosus, Ferrisia virgata, Lepidosaphes Pseudaonidia trilobitiformis, Selenothrips rubrocinctus	*Psidium guajava*	Fruits	Jamaica	United Kingdom	1
Aleurodicus dispersus, Bemisia tabaci	*Corchorus*	Vegetables	Sierra Leone	United Kingdom	1
Ambrosia	*Sorghum vulgare*	Stored products	Hungary	Poland	1
	Zea mays	Stored products	Slovakia	Poland	2
Ambrosia artemisiifolia	*Helianthus annuus*	Stored products	Ukraine	Lithuania	31
Aphelenchoides fragariae	*Astilbe*	Plants for planting	Netherlands	Poland	1
	Fragaria ananassa	Plants for planting	Netherlands	Poland	1

EPPO *Reporting Service*

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Aylax salviae	*Salvia*	Leaves, stems	Turkey	Israel	1
Bemisia tabaci	*Ajuga reptans*	Cuttings	Portugal	United Kingdom	1
	Bouvardia	Cut flowers	Netherlands	Guernsey	1
	Brachychiton	Plants for planting	Israel	Netherlands	1
	Crossandra danica	Plants for planting	Sri Lanka	Netherlands	1
	Eryngium foetidum	Vegetables	Thailand	Denmark	1
	Ficus	Pot plants	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Israel	Ireland	1
	Hibiscus	Pot plants	Netherlands	United Kingdom	1
	Hygrophila	Aquarium plants	Singapore	Denmark	1
	Hypericum	Cut flowers	Israel	Ireland	3
	Hypericum	Cut flowers	Israel	Netherlands	1
	Hypericum	Cut flowers	Netherlands	Ireland	1
	Hypericum androsaemum	Cut flowers	Netherlands	United Kingdom	1
	Solidago	Cut flowers	Zimbabwe	Netherlands	1
	Trachelium	Cut flowers	Israel	Netherlands	1
Bemisia tabaci, Aleurodicus dispersus, Lepidosaphes, Aspidiotus destructor	*Solanum* and unknown leaves	Vegetables	Sierra Leone	United Kingdom	1
Bemisia tabaci, ***Rastrococcus invadens,*** **Diaspididae**	*Manihot, Solanum*	Vegetables	Sierra Leone	United Kingdom	1
Chenopodium	*Raphanus sativus*	Seeds	Netherlands	Israel	1
Cirsium arvense	*Petroselinum crispum*	Seeds	France	Israel	1
Coccus viridis, Selenaspidus articulatus	*Theobroma cacao*	Pot plants	Jamaica	United Kingdom	1
Cochliobolus carbonum	*Zea mays*	Seeds	Spain	Israel	1
Colletotrichum acutatum	*Fragaria ananassa*	Plants for planting	USA	United Kingdom	1
Curculionidae *(*suspect *Curculio elephas)*	*Castanea (*nuts*)*	Stored products	Turkey	Israel	1
Cuscuta	*Medicago sativa*	Seeds	Italy	Poland	3
	Trifolium resupinatum	Seeds	Germany	Poland	1
Diplozythiella bambusina	*Phyllostachys aureosulcata (aureocaulis & spectabilis), P. nigra*	Plants for planting	China	United Kingdom	1
Dysmicoccus neobrevipes, Aulacaspis tubercularis	*Mangifera*	Fruits	Dominican Rep.	United Kingdom	1
Frankliniella occidentalis	*Alstroemeria*	Cut flowers	Netherlands	Israel	1
	Dendranthema	Cut flowers	Netherlands	Lithuania	1
	Dianthus	Cut flowers	Netherlands	Lithuania	6
	Gypsophila	Cut flowers	Netherlands	Lithuania	1
	Helianthus	Cut flowers	Netherlands	Lithuania	5
Fundella pellucens	*Vigna*	Vegetables	Dominican Rep.	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Furchadiaspis zamiae, Pseudaulacaspis pentagona Saissetia (*suspect *oleae)	*Cycas*	Pot plants	South Africa	United Kingdom	1
Fusarium oxysporum	*Begonia*	Pot plants	Netherlands	United Kingdom	1
Globodera	*Solanum tuberosum*	Ware potatoes	Italy	Ireland	1
Globodera pallida	*Solanum tuberosum*	Ware potatoes	Cyprus	Slovenia	1
	Solanum tuberosum	Ware potatoes	Italy	Slovenia	2
Globodera rostochiensis	*Solanum tuberosum*	Ware potatoes	Cyprus	Slovenia	3
	Solanum tuberosum	Ware potatoes	Italy	Ireland	6
	Solanum tuberosum	Seed potatoes	Netherlands	Germany	1
	Solanum tuberosum	Ware potatoes	Spain	Norway	1
	Unspecified woody plants	Plants for planting	Italy	Hungary	1
Helicoverpa armigera	*Dianthus*	Cut flowers	Kenya	Netherlands	1
	Pisum sativum	Vegetables	Kenya	Netherlands	4
	Pisum sativum	Vegetables	Kenya	United Kingdom	1
	Pisum sativum	Vegetables	Zimbabwe	United Kingdom	1
	Solidago	Cut flowers	Zimbabwe	Netherlands	1
Helicoverpa armigera, Liriomyza (*suspect *huidobrensis)	*Pisum sativum*	Vegetables	Kenya	United Kingdom	1
Hirschmaniella caudacrena	*Vallisneria spirallis*	Aquarium plants	Malaysia	Denmark	1
Howardia biclavis, Coccus viridis	*Sideroxylon*	Pot plants	Jamaica	United Kingdom	1
Icerya (*suspect *seychellarum)	*Amaranthus*	Vegetables	Sierra Leone	United Kingdom	1
Impatiens necrotic spot tospovirus	*Lobelia richardii*	Pot plants	Netherlands	Finland	2
Lasiodiplodia theobromae	*Pyrus*	Fruits	USA	Israel	1
Leptinotarsa decemlineata	*Petroselinum crispum*	Vegetables	Italy	United Kingdom	1
	Solanum tuberosum	Ware potatoes	Spain	United Kingdom	1
Liriomyza	*Dianthus*	Plants for planting	Croatia	Austria	3
	Dianthus	Plants for planting	Portugal	United Kingdom	1
	Gypsophila	Cut flowers	Ecuador	Sweden	2
	Gypsophila	Cut flowers	Netherlands	United Kingdom	1
	Gypsophila	Plants for planting	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Spain	Sweden	1
	Ocimum basilicum	Vegetables	Thailand	Denmark	1
Liriomyza (*suspect *huidobrensis)	*Chrysanthemum morifolium*	Cut flowers	Netherlands	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Liriomyza huidobrensis	*Allium fistulosum*	Vegetables	Kenya	United Kingdom	1
	Bupleurum, Molucella laevis	Cut flowers	Netherlands	United Kingdom	1
	Carthamus	Cut flowers	Israel	United Kingdom	1
	Dendranthema	Cut flowers	Netherlands	Ireland	1
	Dianthus	Plants for planting	Netherlands Antilles	United Kingdom	1
	Gypsophila	Cut flowers	Ecuador	Netherlands	2
	Gypsophila	Cut flowers	Israel	Ireland	3
	Gypsophila	Cut flowers	Israel	Netherlands	2
	Gypsophila paniculata	Cut flowers	Netherlands	United Kingdom	1
	Lamium	Cuttings	Portugal	United Kingdom	1
	Lisianthus	Cut flowers	(Netherlands)	United Kingdom	1
	Phaseolus vulgaris	Vegetables	Kenya	Ireland	1
	Thunbergia alata	Plants for planting	Netherlands	Finland	1
	Verbena	Plants for planting	Netherlands	Finland	1
Liriomyza sativae	*Ocimum canum*	Vegetables	Thailand	Denmark	1
Nitidulidae	*Cocos nucifera*	Fruits	Sri Lanka	Israel	1
Paratrichodorus porosus, Heterodera	*Cordyline indivisa*	Pot plants	Italy	United Kingdom	1
Penicillium, Rhizopus	*Ipomea batatas, Papaya carica, Litchi chinensis, Passiflora edulis*	Fruits and Vegetables	(Netherlands)	Cyprus	1
Pepino mosaic potexvirus	*Lycopersicon esculentum*	Vegetables	Spain (Canary isl.)	United Kingdom	4
Phytophthora fragariae* var. *fragariae	*Fragaria ananassa*	Plants for planting	France	Poland	1
Phytophthora ramorum	*Rhododendron*	Pot plants	Belgium	United Kingdom	1
	Rhododendron	Plants for planting	Germany	Ireland	1
	Rhododendron	Plants for planting	Netherlands	Sweden	1
	Rhododendron	Pot plants	Netherlands	United Kingdom	4
	Viburnum fragans	Plants for planting	Netherlands	United Kingdom	1
	Viburnum tinus	Pot plants	France	United Kingdom	3
	Viburnum tinus	Plants for planting	Italy	Ireland	1
Plodia interpunctella	Dry herbs	Stored products	France	Israel	1
Polygonum	*Spinacia oleracea*	Seeds	Netherlands	Israel	1
Polygonum convolvulus	*Allium cepa*	Seeds	Denmark	Israel	1
	Hordeum	Stored products	Russia	Israel	1
	Panicum	Stored products	Bulgaria	Israel	1
	Triticum	Stored products	Russia	Israel	1
	Unspecified birdseed	Stored products	Italy	Israel	1
Polygonum persicaria	*Anethum graveolens*	Seeds	Denmark	Israel	1
Pratylenchus mediterraneus, Scutylenchus, Merlinius	*Solanum tuberosum*	Ware potatoes	Israel	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Prunus necrotic ringspot nepovirus	*Prunus dulcis*	Plants for planting	Hungary	Italy	1
Psyllidae (*suspect *Diaphorina citri)	*Murraya*	Fruits	Dominican Rep.	United Kingdom	1
Pyricularia (*suspect *grisea)	*Chondropetalum*	Pot plants	South Africa	United Kingdom	1
Ralstonia solanacearum	*Solanum tuberosum*	Ware potatoes	Belgium	Hungary	1
	Solanum tuberosum	Ware potatoes	Egypt	Germany	2
	Solanum tuberosum	Ware potatoes	Italy	Slovenia	1
Rhizopertha dominica	*Hordeum vulgare*	Stored products	Czech Republic	Poland	2
	Triticum	Stored products	Czech Republic	Poland	1
	Triticum aestivum	Stored products	Czech Republic	Poland	1
	Triticum aestivum	Stored products	Slovakia	Poland	1
	Zea mays	Seeds	Czech Republic	Poland	1
Rhizopertha dominica, Sitophilus oryzae	*Triticum aestivum*	Stored products	Slovakia	Poland	1
Rots	*Pyrus*	Fruits	USA	Israel	1
Sitophilus oryzae	Triticosecale hybrids	Stored products	Czech Republic	Poland	2
	Triticum	Stored products	Czech Republic	Poland	1
	Triticum aestivum	Stored products	Czech Republic	Poland	1
	Triticum aestivum	Stored products	Slovakia	Poland	1
	Zea mays	Stored products	Slovakia	Poland	4
Sitophilus oryzae, Tribolium	*Hordeum vulgare*	Stored products	Czech Republic	Poland	2
Solanum nigrum	*Anethum graveolens*	Seeds	Denmark	Israel	1
Spoladea recurvalis	*Amaranthus*	Vegetables	Sierra Leone	United Kingdom	1
Spoladea recurvalis, Herpetogramma bipunctalis	*Amaranthus*	Vegetables	Dominican Rep.	United Kingdom	1
Stenocarpella maydis (= Diplodia zeae)	*Zea mays*	Seeds	USA	Israel	1
Thripidae (*suspect *Thrips palmi)	*Momordica charantia*	Vegetables	Dominican Rep.	United Kingdom	2
	Solanum melongena	Vegetables	Dominican Rep.	United Kingdom	2
Thrips	*Dendrobium*	Cut flowers	Thailand	Germany	1
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	Netherlands	2
Thrips palmi, Bemisia tabaci, Phthorimaea operculella	*Solanum melongena*	Vegetables	Dominican Rep.	United Kingdom	1
Tobamovirus	*Lycopersicon esculentum*	Seeds	Netherlands	Israel	1
Trialeurodes ricini, Bemisia tabaci	Unknown leaves	Vegetables	Sierra Leone	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Tribolium	*Hordeum vulgare*	Stored products	Czech Republic	Poland	2
	Hordeum vulgare	Stored products	Slovakia	Poland	2
	Triticosecale hybrids	Stored products	Czech Republic	Poland	1
	Triticum	Stored products	Czech Republic	Poland	2
	Triticum	Stored products	Slovakia	Poland	2
	Triticum aestivum	Stored products	Slovakia	Poland	2
	Zea mays	Stored products	Slovakia	Poland	1
Trogoderma granarium	*Hordeum vulgare*	Stored products	Slovakia	Poland	2
Trogoderma granarium	*Zea mays*	Stored products	Slovakia	Poland	1
Weed seeds	*Allium schoenoprasum*	Seeds	Czech Republic	Israel	1
Xanthomonas fragariae	*Fragaria ananassa*	Plants for planting	France	Switzerland	1

- **Fruit flies**

Pest	Consignment	Country of origin	C. of destination	nb
Anastrepha obliqua	*Mangifera*	Jamaica	United Kingdom	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Anoplophora, grub holes	Non-coniferous	Packing material	China	Germany	1
> 3 mm	Non-coniferous	Packing material	China	Sweden	1
Bursaphelenchus xylophilus	Coniferous	Packing material	USA	Finland	2
Cerambycidae	Coniferous	Packing material	China	Germany	1
Grub holes > 3 mm	Coniferous and non-coniferous	Packing material	China	Germany	1
	Larix	Sawn wood	Russia	Finland	2
	Non-coniferous	Packing material	China	Germany	15
	Non-coniferous	Packing material	China	Sweden	1
	Pinus sylvestris	Wood	Russia	Spain	1
Ips cembrae, Cerambycidae	*Larix sibirica*	Wood and bark	Russia	Italy	1
Living larvae	Non-coniferous	Packing material	China	Germany	1
Monochamus, Ips cembrae, **Cerambycidae**	*Larix sibirica*	Wood and bark	Russia	Italy	1

- **Bonsais**

Pest	Consignment	Country of origin	Country of destination	nb
Anoplophora malasiaca	*Acer palmatum*	Japan	Germany	1
Cryphodera brinkmani	*Pinus pentaphylla*	Japan	Germany	2
Dialeurodes citri	*Ligustrum*	China	United Kingdom	1
Pseudaonidiae duplex	*Acer*	China	United Kingdom	1
Xiphinema americanum	*Acer palmatum, Ilex crenata, Loropetalum chinense*	Japan	Netherlands	1
	Ilex crenata, Taxus cuspidata	Japan	Netherlands	1
	Taxus cuspidata	Japan	Netherlands	2

Source: EPPO Secretariat, 2003-05.