EPPO

Reporting

Service

Paris, 1996-06-01 **Reporting Service 1996, No. 6**

CONTENTS

96/106 First report of *Erwinia amylovora* in Hungary

The EPPO Secretariat was recently informed by the Hungarian Plant Protection Service that *Erwinia amylovora* (EPPO A2 quarantine pest) has been found in Hungary for the first time. The bacterium was detected on the 1996-04-25 in two neighbouring apple orchards of 20 and 22.8 ha, planted in 1990-1991, at Nyárlörinc, near Kecskemét. Eradication measures have immediately been applied. According to the Hungarian phytosanitary regulations, infected orchards and susceptible host plants within a radius of 3 km were destroyed. All apple trees of the infected orchards were uprooted and burnt. Phytosanitary measures have also been taken to prevent further spread of the disease. This is the first report of *E. amylovora* in Hungary.

Source: Plant Protection Service of Hungary, 1996-05.

Additional key words: new record **Computer codes:** ERWIAM, HU

96/107 First report of *Erwinia amylovora* in Spain

Symptoms of fireblight were observed for the first time in Northern Spain in August 1995, and the presence of the bacterium, *Erwinia amylovora* (EPPO A2 quarantine pest), was confirmed in October 1995. This focus was found in a new plantation of cider apple trees of 1.2 ha, located in Lezo (Guipúzcoa - Comunidad Autónoma del País Basco) at 8 km from the French border. Eradication measures were applied and the whole plantation was burnt (i.e. 925 trees). A monitoring programme on fireblight was set up in Spain in 1994, and includes a network of 2500 points which are normally inspected from April to November. All plants showing suspicious symptoms are submitted to laboratory tests. As a result of this outbreak, an additional monitoring programme was carried out in order to verify the effectiveness of eradication measures. Therefore, surveys were carried out in autumn/winter in nurseries situated in the Province of Guipúzcoa. 979 plants (asymptomatic material from 10 nurseries) have been tested by different laboratories (in Spain and France), and *E. amylovora* was not detected. In addition, an extensive programme of information to the growers has been made in the country, and especially in the Comunidad Autónoma del País Basco.

During 1996, the Plant Protection will continue to apply the following measures:
1) reinforcement of the network created in 1994, especially in the area where *E. amylovora* had been found; 2) surveys of nurseries and establishments commercializing host plants of *E. amylovora*; 3) surveys of host plants in forests; 4)

information campaigns; 5) tests of all suspect samples and of some asymptomatic samples.

Source: **Plant Protection Service of Spain, 1995-06.**

de la Cruz Blanco, J. (1996) Incidencias climáticas y fitosanitarias en los cultivos españoles durante 1995 - Frutales.
Phytoma-España, no. 78, 22-27.

Additional key words: new record **Computer codes:** ERWIAM, ES

96/108 Is *Erwinia amylovora* present in Japan ?

Some early reports, made at the beginning of this century, had mentioned the possible occurrence of *Erwinia amylovora* (EPPO A2 quarantine pest) in Japan. However, these old records were denied by other Japanese researchers in 1974, and considered as misidentifications. When consulted by the EPPO Secretariat in 1992, the Japanese Plant Protection Service officially declared that *E. amylovora* was absent from Japan.

However, different views have been presented at the 7th ISHS International Workshop on Fire Blight in 1995. A bacterial shoot blight of Asian pear (*Pyrus pyrifolia*) occurred on Hokkaido, in the 1970s. The symptoms were indistinguishable from those of fireblight as it occurs on European pear (*Pyrus communis*) in North America and Europe. Beer *at al*. (1995) have studied the only known surviving strain from the 1970s and several other strains isolated more recently from symptomatic pear blossoms and shoots on Hokkaido. Based on several tests (traditional bacterial tests, molecular analysis), the authors concluded that the 'bacterial shoot blight pathogen' is *Erwinia amylovora*. Inoculation of fruit and growing shoots of several European and Asian pear cultivars resulted in typical symptoms of fireblight.

Source: **Plant Protection Service of Japan, 1992**.

Beer, S.V.; Kim, J.H.; Gustafson, H.L.; Zumoff, C.H.; Laby, R.J.; Bogdanove, A.J.; Tanii, A.; Tamura, O.; Momol, T.; Aldwinckle, H.S. (1995) Characterization of bacteria that cause "bacterial shoot blight of pear" in Japan. **Abstract of a paper presented at the 7th ISHS International Workshop on Fire Blight, 1995-08-07/10, St Catharines, Ontario, Canada.**

Computer codes: ERWIAM, JP

96/109 Potato spindle tuber viroid is not present in Japan

The record of potato spindle tuber viroid (EPPO A2 quarantine pest) appearing in 'Quarantine Pests for Europe' and PQR was established on the basis of the abstract of a paper from Takahashi (1987) on plant viroid diseases occurring in Japan, published in 'Review of Plant Pathology'. In fact, the abstract cited erroneously potato spindle tuber as present in Japan. In the original paper, five viroids are recorded as present in Japan (citrus exocortis, hop stunt, chrysanthemum stunt, apple scar skin and plum dapple viroids), but no mention is made to potato spindle tuber viroid. The Plant Protection Service of Japan has informed the EPPO Secretariat that potato spindle tuber viroid is totally absent from Japan, and is considered as a serious quarantine pest which should not enter Japanese territory.

Sources: **Plant Protection Service of Japan, 1996-05.**

Takahashi, T. (1987) Plant viroid diseases occurring in Japan. **Japanese Agricultural Research Quarterly, 21(3)184-191.**

Review of Plant Pathology (1988), 67(7), p 477 (abst. 4397).

Additional key words: denied record **Computer codes:** POSTXX, JP

96/110 New records of *Liriomyza sativae* in Asia and Africa

- *Liriomyza sativae* found in India and Thailand

Liriomyza sativae (EPPO A1 quarantine pest) has been found in India on tomato and in Thailand on cotton. Individuals were collected in India in April 1994 on tomato crops, in the region of Kanpur (Uttar Pradesh). Damage was noted and 12 to 24 mines per leaf could be observed. In Thailand, the first outbreak was noticed in June 1994 on cotton crops.

- *Liriomyza sativae* found in Cameroon and Sudan

L. sativae (EPPO A1 quarantine pest) has recently been found in Cameroon and Sudan. The authors have described serious damage on many vegetable crops and *Hibiscus esculentus*. These are the first reports in Africa of damage due to *L. sativae*.

Sources: Martinez, M. (1994) Un nouveau ravageur menace la région orientale: *Liriomyza sativae* Blanchard (Diptera: Agromyzidae). **Bulletin de la Société Entomologique de France, 99(4), p 356**.
Martinez, M.; Bordat, D. (1996) Note sur la présence de *Liriomyza*

sativae Blanchard (Diptera, Agromyzidae) au Soudan et au Cameroun.
Bulletin de la Société Entomologique de France, 101(1), 71-73.

Additional key words: new records **Computer codes:** LIRISA, CM, IN, SD, TH

96/111 EPPO Distribution List for *Liriomyza sativae*

Due to the new records of *Liriomyza sativae* (EPPO A1 quarantine pest) from Cameroon, India, Sudan and Thailand, the distribution of the pest has to be modified.

EPPO Distribution List: *Liriomyza sativae*

EPPO region: Absent. Finland (intercepted only), UK (intercepted only)

Africa: Cameroon, Sudan, Zimbabwe.

Asia: India, Oman, Thailand, Yemen.

North America: Canada (under glass in Ontario), Mexico (unconfirmed), USA (Hawaii; outside in southern and western states; in glasshouses in Ohio, Maryland and Pennsylvania).

Central America and Caribbean: Antigua and Barbuda, Bahamas, Barbados, Costa Rica, Cuba, Dominica, Dominican Republic, Guadeloupe, Jamaica, Martinique, Montserrat, Nicaragua, Panama, Puerto Rico, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, Trinidad and Tobago.

South America: Argentina, Brazil, Chile, Colombia, French Guiana, Peru, Venezuela.

Oceania: American Samoa, Cook Islands, French Polynesia, Guam, Micronesia, New Caledonia, Northern Mariana Islands, Samoa, Vanuatu.

This distribution list replaces all previous published EPPO Distribution Lists on *Liriomyza sativae* !

Source: **EPPO Secretariat, Paris, 1996-06.**

96/112 First report of tomato yellow leaf curl geminivirus and *Bemisia tabaci* in Portugal

The Plant Protection Service of Portugal has recently informed the EPPO Secretariat that tomato yellow leaf curl geminivirus (EPPO A2 quarantine pest) was found for the first time. In late summer 1995, a disease associated with *Bemisia tabaci* seriously affected tomato crops in Algarve (southern region of Portugal). The disease occurred mainly in glasshouse crops and occasionally in open fields. Autumn crops were the most severely damaged and yield was drastically reduced. Tomato yellow leaf curl geminivirus was identified as the causal agent of this disease. The Plant Protection Service noted that, so far, tomato yellow leaf curl geminivirus and its vector *B. tabaci* appear to be limited to the Algarve region. According to the EPPO Secretariat, this is also the first report of *B. tabaci* in Portugal.

Source: **Plant Protection Service of Portugal, 1996-05.**

Additional key words: new record **Computer codes:** BEMITA, TMYLCX, PT

96/113 First report of pear decline phytoplasma in Poland

In Poland, disease symptoms including premature foliage reddening and slow decline of pear trees (cv. Kiparyjska, Radcowka and Williams 'Bon Chrétien' grafted on *Pyrus communis*) were observed in some orchards. In two orchards, quick decline of pear trees was seen (cv. Patten grafted on *Pyrus communis*). Samples of roots and shoots have been tested (DAPI, PCR), and the presence of pear decline phytoplasma (EPPO A2 quarantine pest) was confirmed. This is the first report of this pathogen in Poland.

Source: Malinowski, T.; Zandarski, J.; Komorowska, B.; Zawadska, B. (1996) Detection of pear decline phytoplasma in declining pear trees in Poland.
Plant Disease, 80(4), p 464

Additional key words: new record **Computer codes:** PRDXXX, PL

96/114 Relationships between populations of *Pseudomonas syringae* pv. *persicae* from different origins

It is recalled that *Pseudomonas syringae* pv. *persicae* (EPPO A2 quarantine pest) was first recorded in 1967 from the Rhone valley in France, and almost simultaneously from Hauwke's Bay in New Zealand. In France, the pathogen is confined to peach (*Prunus persica*) and nectarine (*P. persica* subsp. *nucipersica*). In New Zealand, it is found on peach, nectarine and Japanese plum (*P. salicina*). In 1966, a related pathogen was observed in England (in Kent) on myrobalan plum (*P. cerasifera*). Comparison studies of DNA restriction endonuclease fragment patterns were carried out in New Zealand on the relationships between populations of *P syringae* pv. *persicae*. In these studies, it was also attempted to explain the origin of the pathogen. One could wonder whether the pathogen had been present as independent populations in New Zealand and Europe or has been transported between the two hemispheres. Results showed first that the comparison of 31 strains from the three countries formed a single cluster. The authors felt that strains from England should be classified in *P. syringae* pv. *persicae**. It was also found that fragment patterns produced by strains from France and England formed homogeneous but separate groups, while those from New Zealand were relatively heterogeneous. The data suggests that the populations from New Zealand are older than the European populations, and this could therefore indicate that the origin of *P. syringae* pv. *persicae* is in New Zealand (provided an ancestral population is not found elsewhere in the world). As populations from England and France are distinct, this could imply that separate introductions took place. However, many questions remains unanswered: e.g. the absence of likely ancestral hosts of *P. syringae* pv. *persicae* in New Zealand (*Prunus* spp. were introduced to southern New Zealand at the end of last century); the pathway to other countries, as there is no large-scale dissemination of stone-fruit planting material from New Zealand to the northern hemisphere.

_____

*** EPPO note: *P. syringae* pv. *persicae* was previously not considered as present in United Kingdom.**

Source: Young, J.M.; Jones, D.S.; Gillings, M. (1996) Relationships between populations of *Pseudomonas syringae* pv. *persicae* determined by restriction fragment analysis.
Plant Pathology, 45(2), 350-357.

Additional key words: genetics **Computer codes:** PSDMPS, FR, GB, NZ

96/115 *Ceratitis capitata* trapped in New Zealand

On 1996-05-02, two male fruit flies identified as *Ceratitis capitata* (EPPO A2 quarantine pest) were collected from a trimedlure trap in Auckland, in the North Island of New Zealand. In the Auckland area, 1992 trimedlure traps are placed at approximately 400 m intervals. These traps are inspected every 14±1 days as part of the New Zealand ongoing fruit fly surveillance programme. As a result of the captures, an A-zone of 200 m radius around the finds and a B-zone of 1.5 km around the finds were defined. These zones lie within the central Auckland suburb of Mount Roskill (and thus concern home gardens and not commercial orchards). On 1996-05-04, additional traps were placed in both the A and B zones. In the A zone, trimedlure traps have been placed in fruit host trees with at least 1 trap on each of the 78 properties comprising the A zone. In addition, 47 bait traps (primarily to detect the presence of females) were placed in fruiting host trees in the A zone. On 1996-05-12, additional 21 trimedlure traps were placed in an area of waste ground located within the A zone (total of 106 trimedlure traps in the A zone). In the B zone, traps have been placed in fruiting host trees (where possible) at a density of 20-30 traps/km^2 (total of 231 lure traps in the B zone). Fruit monitoring, involving the regular collection of ripe fruit from specified hosts from all A zone properties and examination for larvae, was also initiated.

On 1996-05-05, 14 more *C. capitata* (5 males in five trimedlure traps, 3 males and 6 females in two bait traps) were collected from seven properties neighbouring the property where the original two males were caught (i.e. within the A zone). As a result, spot spraying of protein bait mixed with malathion insecticide was carried out in both A and B zones (with a minimum of 100 ml bait spots/ha, with all host trees treated).

On 1996-05-06, 13 more *C. capitata* (11 males in five trimedlure traps, 1 male and 1 female in a bait trap) were collected from four properties, situated within 200 m of the property where the original two males were caught (i.e. within the A zone). As a result of fruit monitoring, a larval infestation was located in a feijoa tree in one the properties immediately adjacent to the one where original captures were made.

Subsequent finds of larva-infested fruits have brought the total number of larvae to 85, extracted from twelve fruits (8 feijoa, 2 tangelos and 2 grapefruits). There have been no larval finds since 1996-05-23.

As of now (1996-06-13), the total number of trapped *C. capitata* is 41 (31 males and 10 females). All fruit flies have been found within the A zone. The last adult was trapped on 1996-05-15.

Source: Ministry of Agriculture of New Zealand, 1996-06.

Additional key words: new record **Computer codes:** CERTCA, NZ

96/116 *Bactrocera papayae* and *B. tryoni* trapped in New Zealand

On 1996-03-29, a single male *Bactrocera papayae* (EPPO A1 quarantine pest) was trapped in Auckland in the North Island of New Zealand. In the Auckland area, 326 methyl eugenol surveillance traps are placed at approximately 1200 m intervals. New Zealand has set up an ongoing fruit fly surveillance programme, in which traps are inspected every 14 days. All these traps were inspected during this period of two weeks, and no other fruit fly was found.
On the same date, two single male *Bactrocera tryoni* (EPPO A1 quarantine pest) were caught on cuelure traps, on the North Shore in Auckland. In this area, 1992 traps are placed at approximately 400 m intervals. As for *B. papayae*, these traps are regularly inspected and during the following two weeks period, no other fruit fly was found. As a result of these captures, further traps were placed in the vicinity of the capture points (within a radius of 1.5 km), and surveys on fruit were carried out. Mature fruit of many species have been inspected and no larval population were detected.

Source: Anonymous (1996) Fruit fly trap captures in Auckland.
Sentinel, no. 53, May 1996, p 4.

Additional key words: new records **Computer codes:** BCTRPW, DACUTR, NZ

96/117 Gamma irradiation of *Bactrocera minax* larvae

Studies have been carried out in China on gamma irradiation as a quarantine treatment against *Bactrocera minax* (EPPO A1 quarantine pest) in fresh citrus fruits (*Citrus sinensis*, *C. paradisi* and *C. reticulata*). Results showed that mortality rate was positively correlated with the dose. Doses above 50 Gy completely prevented the pupae from developing into adults. Doses required for 50 and 100 % larval mortality were estimated as 2.76 and 87.78 Gy respectively; and for pupae doses were 20.4 and 70 Gy. Tested fruits did not show damage even at doses reaching up to 1200 Gy. The authors recommended a gamma irradiation treatment against *B. minax* in citrus fruits at 70 Gy.

Source: Zhao XueQian; Fan JingAn; Xie ChengLun; Qin Zhen; Li Gang; Zhu Jun (1995) [A study of the influence of gamma irradiation (^{60}Co) on the larvae of *Tetradacus citri* (Chen)].
Journal of Southwest Agricultural University, 17(2), 126-129.

Additional key words: quarantine treatment **Computer codes:** DACUCT

96/118 Biology of *Anoplophora malasiaca*

In Japan, studies were carried out in the laboratory on the biology of *Anoplophora malasiaca* (EPPO A1 quarantine pest) under a varying temperature regime simulating day and seasonal fluctuations of natural temperatures, and under 3 constant temperatures (20, 25 and 30 °C). The photoperiod applied was constant darkness, and insect were fed with freshly cut citrus shoots. With fluctuating temperatures, more than 70 % of the larvae survived and required 1 or 2 years to complete their life cycle. The proportion of individuals with a 2-year life cycle increase as the oviposition time was delayed in the season. Most larvae spent several months without feeding before pupation. Adults emerged simultaneously in June irrespective of their life cycle type. At 20 °C, 57 % of the individuals completed their development and emerged as adults during the period from 306 to 704 days after oviposition. At 25 and 30 °C, all individuals eventually died during the larval stage. Estimates of the lower developmental threshold temperatures for eggs and young larvae were respectively, 6.7 and 11.6 °C.

Source: Adachi, I. (1994) Development and life cycle of *Anoplophora malasiaca* (Thomson) (Coleoptera: Cerambycidae) on citrus trees under fluctuating and constant temperature regimes.
Applied Entomology and Zoology, 29(4), 485-497.

Additional key words: biology **Computer codes:** ANOLMA

96/119 Control of *Apiosporina morbosa*

Studies were carried out in Ontario (CA) on control of *Apiosporina morbosa* (EPPO A1 quarantine pest) with several fungicides, during 1988 and 1990 in plum orchards and in 1992 in sour cherry orchards. The most effective fungicides were: captan, chlorothalonil, dichlone, fenbuconazole and sulfur. Benomyl, propiconazole and flusilazole were of intermediate activity. Ipriodione, myclobutanil, tebuconazole, triforine, canola (rape) oil and soybean oil were ineffective.

Source: Northover, J.; McFadden-Smith, W. (1995) Control and epidemiology of *Apiosporina morbosa* of plum and sour cherry.
Canadian Journal of Plant Pathology, 17(1), 57-68.

Additional key words: control methods **Computer codes:** DIBOMO, CA

96/120 Geographical distribution of Russian A2 quarantine pests in Russia: insects and nematodes

EPPO Reporting Service 96/059 defined the 6 major zones into which Russia is now being divided for the purposes of recording pest distribution. Detailed data has been provided to the EPPO Secretariat for the quarantine pests of the Russian A2 list (i.e. of limited distribution in Russia), based on the regular surveillance programme in 1994. We present here the distribution of the insects and nematodes. There may be some minor year-to-year variation in the detection of these quarantine pests in the different areas; the data given here concerns what was detected in 1994 and is not cumulative over earlier years.

Acrobasis pirivorella
Far East: Amur, Evrei, Khabarovsk, Primor'e

Agrilus mali
Far East: Amur, Khabarovsk, Primor'e

Carposina niponensis
Far East: Amur, Evrei, Khabarovsk, Primor'e

Ceratitis capitata
Southern Russia: Krasnodar

Cydia molesta
Central Russia: Kaliningrad, Moskva
Southern Russia: Adygeya, Astrakhan, Dagestan, Kabardino-Balkar, Karachaevo-Cherkess, Krasnodar, Rostov, Severnaya Osetiya-Alaniya, Stavropol, Voronezh
Far East: Khabarovsk, Primor'e

Globodera rostochiensis
Northern Russia: Arkhangel'sk, Kareliya, Komi
Central Russia: Bashkortostan, Bryansk, Chuvash, Ivanovo, Kaliningrad, Kaluga, Kirov, Kostroma, Leningrad, Lipetsk, Marii El, Mordoviya, Moskva, Nizhnyi Novgorod, Novgorod, Orel, Penza, Perm, Pskov, Ryazan, Smolensk, Tambov, Tatarstan, Tula, Tver', Udmurtiya, Ul'yanov, Vladimir, Vologda, Yaroslavl'
Southern Russia: Belgorod, Karachaevo-Cherkess, Kursk, Severnaya Osetiya-Alaniya, Voronezh
Western Siberia: Chelyabinsk, Kemerovo, Novosibirsk, Sverdlovsk, Tomsk, Tyumen,
Eastern Siberia: Irkutsk
Far East: Amur, Evrei, Khabarovsk, Primor'e, Sakhalin

Hyphantria cunea
Southern Russia: Adygeya, Astrakhan, Dagestan, Ingushetiya, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Rostov, Severnaya Osetiya-Alaniya, Stavropol, Volgograd

Phthorimaea operculella
Southern Russia: Adygeya, Krasnodar

Popillia japonica
Far East: Sakhalin

Spodoptera litura
Far East: Khabarovsk, Primor'e

Quadraspidiotus perniciosus
Southern Russia: Adygeya, Astrakhan, Dagestan, Ingushetiya, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Rostov, Severnaya Osetiya-Alaniya, Stavropol, Volgograd
Far East: Amur, Evrei, Khabarovsk, Primor'e, Sakhalin

Viteus vitifoliae
Southern Russia: Adygeya, Dagestan, Kabardino-Balkar, Krasnodar, Rostov, Stavropol

Source: Plant Protection Service of Russia, 1995.

96/121 News from the Diagnostic Centre of the Dutch Plant Protection Service

1) *Diaprepes abbreviatus* was observed in November 1994 on an *Areca* palm imported (in May or June) from the Dominican Republic. Although no more beetles were found in the glasshouse concerned, measures were taken to prevent further spread. *D. abbreviatus* is very polyphagous, damage is known on citrus, yucca, sugarcane, cotton, coffee etc. Although it is very unlikely that this insect can survive outdoor in Europe, it may establish in glasshouses. It originates from the Caribbean region, South and Central America and Mexico. Reports mention that it is still spreading within North America.

2) The mealybug, *Rhizoecus hibisci*, which has been intercepted several times in European countries on bonsai plants from China, is now present in some glasshouses in the Netherlands. It was found on *Rhapis* sp. (Palmae) originating from Hong Kong, and on two bonsai trees, *Serissa* sp. (Rutacae) and *Zelkova* sp. (Ulmacae) both originating from China. In Japan, *R. hibisci* was reported from the following hosts: *Carex* sp. *Crinum asiaticum*, *Cuphea hyssopifolia*, *Dieffenbachia* sp., *Hakonechloa macra*, *Nerium oleander*, *Pelargonium*, *Phoenix* sp., *Sabal* sp. *Hibiscus rosasinensis*. In the Netherlands, serious damage (including shrivelling and death of plants) was only observed on *Serissa* in a glasshouse at Rijsenhout in 1992.

3) Tomato black ring nepovirus (EU Annex II/A2) was detected in carrot (*Daucus carota* cv. Panther). Affected plants showed mosaic and chlorosis on the leaves, but leaf margins often remain green. In the field these symptoms were observed only locally.

4) In 1994, tomato spotted wilt tospovirus (potential A2 quarantine pest) was detected 44 times in 25 different plant species. Among these, the virus was found for the first time on *Kalanchoe daigremontiana*, *Maranta tricolor* and *Spinacia oleracea.*

5) Potato spindle tuber viroid (EPPO A2 quarantine pest) has been intercepted on potatoes from Cuba. According to the EPPO Secretariat, this pathogen is not mentioned as present in this country.

Source: **Annual Report 1994, Diagnostic Centre, Plant Protection Service, Wageningen, Netherlands, 131 pp.**

95/122 EPPO report on selected intercepted consignments

The EPPO Secretariat has gathered the intercepted consignments received from January to May 1996, from the following countries: Austria, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Switzerland, Tunisia; United Kingdom. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets.
In addition, the EPPO Secretariat has selected only interceptions made because of the presence of harmful organisms; other interceptions due to prohibited commodities, missing or invalid certificates are not indicated here. It must be pointed out that these data are only partial, as many EPPO countries have not yet sent their interceptions for 1996; therefore no statistics can be made out of this ! EPPO will continue to publish yearly reports containing all intercepted consignments received at the headquarters of the Organization.

	Consignment	**Type of commodity**	**Country of Origin**	**Country of destination**	**nb***
Autoserica castanea	*Fagus crenata*	Pot plant	Japan	Netherlands	1
Bemisia tabaci	*Artemisia*	Cuttings	Israel	United Kingdom	1
	Chrysanthemum	Cut flowers	Italy	United Kingdom	1
	Chrysanthemum	Cut flowers	Netherlands	Ireland	1
	Chrysanthemum	Cut flowers	Netherlands	United Kingdom	2
	Euphorbia pulcherrima	Pot plants	Netherlands	United Kingdom	1
	Eustoma grandiflorum	Cut flowers	Israel	Germany	1
	Gerbera	Cuttings	India	Netherlands	1
	Lantana	Cuttings	Israel	United Kingdom	1
	Lantana	Plants for planting	Netherlands	United Kingdom	1
	Nerium oleander	Pot plants	Israel	Netherlands	1
	Origanum vulgare	Vegetables	Israel	United Kingdom	1
	Solidago	Cut flowers	Israel	United Kingdom	1
	Solidago	Cut flowers	Zimbabwe	United Kingdom	1
	Trachelium	Cut flowers	Israel	United Kingdom	1
	Verbena	Cuttings	Israel	United Kingdom	2
	Unknown plants	Vegetables	Nigeria	United Kingdom	2
Burkholderia solanacearum	*Solanum tuberosum*	Ware potatoes	Egypt	Austria	3
	Solanum tuberosum	Ware potatoes	Egypt	France	4
	Solanum tuberosum	Ware potatoes	Egypt	Germany	5
	Solanum tuberosum	Ware potatoes	Egypt	Greece	11
	Solanum tuberosum	Ware potatoes	Egypt	Italy	5
	Solanum tuberosum	Ware potatoes	Egypt	Spain	1
	Solanum tuberosum	Ware potatoes	Egypt	United Kingdom	14
	Solanum tuberosum	Ware potatoes	Unknown origin!	United Kingdom	6
Chrysodeixis sp.	*Anigozanthos*	Cuttings	Australia	Netherlands	1
Colletotrichum acutatum	*Fragaria ananassa*	Plants for planting	USA	France	1

	Consignment	Type of commodity	Country of Origin	Country of destination	nb*
Criconemoides sp.	*Phoenix roebelenii*	Plants for planting	Costa Rica	Germany	1
Diaporthe vaccinii	*Vaccinium corymbosum*	Plants for planting	USA	Italy	1
Ditylenchus dipsaci	*Allium cepa*	Bulbs	Turkey	Greece	1
Frankliniella occidentalis	*Gypsophila*	Cut flowers	Israel	Germany	1
Globodera rostochiensis & G. pallida	*Solanum tuberosum*	Ware potatoes	Cyprus	Ireland	2
Helicotylenchus sp.	*Phoenix roebelenii*	Plants for planting	Costa Rica	Germany	1
Helicoverpa armigera	*Dianthus*	Cut flowers	Israel	Netherlands	1
	Dianthus	Cut flowers	Kenya	Netherlands	28
	Dianthus	Cut flowers	Morocco	France	1
	Oscimum basilicum	Vegetables	South Africa	United Kingdom	1
	Solidago	Cut flowers	Zimbabwe	United Kingdom	1
Helicoverpa zea	*Capsicum annuum*	Vegetables	Barbados	United Kingdom	1
Leptinotarsa decemlineata	*Cichorium endivia*	Vegetables	France	United Kingdom	1
	Cichorium endivia	Vegetables	Italy	United Kingdom	5
	Lactuca sativa	Vegetables	France	United Kingdom	3
	Lactuca sativa	Vegetables	Italy	United Kingdom	1
	Petroselinum crispum	Vegetables	Italy	Ireland	1
	Petroselinum crispum	Vegetables	Italy	United Kingdom	6
Liriomyza huidobrensis	*Apium graveolens*	Vegetables	Cyprus	United Kingdom	1
	Apium graveolens	Vegetables	Spain	United Kingdom	1
	Apium graveolens	Vegetables	USA	United Kingdom	2
	Artemisia dracunculus	Vegetables	Morocco*	United Kingdom	1
	Aster	Cut flowers	Netherlands	United Kingdom	1
	Beta cicla	Vegetables	Cyprus	United Kingdom	5
	Beta vulgaris	Vegetables	Cyprus	United Kingdom	3
	Brachycome	Cuttings	Israel	United Kingdom	3
	Brachycome + Bacopa	Cuttings	Portugal	United Kingdom	1
	Chrysanthemum	Cut flowers	Côte d'Ivoire*	United Kingdom	1
	Chrysanthemum	Cut flowers	Honduras	Germany	1
	Chrysanthemum	Cut flowers	Israel	Germany	2
	Chrysanthemum	Cut flowers	Israel	Netherlands	4
	Chrysanthemum	Cut flowers	Netherlands	Ireland	3
	Chrysanthemum	Cut flowers	Netherlands	United Kingdom	3
	Chrysanthemum	Cut flowers	Spain	United Kingdom	1
	Dianthus barbatus	Cut flowers	Israel	France	4
	Dianthus	Cuttings	Spain (Canary Isl.)	Netherlands	1
	Eustoma grandiflorum	Cut flowers	Kenya*	United Kingdom	3
	Gypsophila	Cut flowers	Israel	France	2
	Gypsophila	Cut flowers	Israel	Ireland	1
	Gypsophila	Cut flowers	Israel	United Kingdom	2
	Gypsophila	Cut flowers	Netherlands	United Kingdom	5
	Gypsophila	Cut flowers	Peru	United Kingdom	1
	Gypsophila	Cut flowers	Spain	United Kingdom	1
	Gypsophila	Cut flowers	Turkey*	United Kingdom	1
	Impatiens	Cuttings	Israel	United Kingdom	1
	Lathyrus ochrus	Vegetables	Cyprus	United Kingdom	2

* The EPPO Secretariat had no information on the occurrence of the pest concerned in this country

	Consignment	Type of commodity	Country of Origin	Country of destination	nb*
L. huidobrensis (cont.)	*Nepeta*	Plants for planting	Portugal	United Kingdom	1
	Petroselinum	Vegetables	Israel	United Kingdom	1
	Petunia	Pot plants	Netherlands	United Kingdom	1
	Pisum sativum	Vegetables	Guatemala	United Kingdom	12
	Spinacea oleracea	Vegetables	USA	United Kingdom	1
	Trigonella foenum-graecum	Vegetables	Cyprus	United Kingdom	1
	Verbena	Cuttings	Netherlands	United Kingdom	3
Liriomyza trifolii	*Allium tuberosum*	Vegetables	Dominican Rep.	United Kingdom	1
	Apium graveolens	Vegetables	Spain	United Kingdom	1
	Chrysanthemum	Cut flowers	Colombia	United Kingdom	2
	Chrysanthemum	Cut flowers	Netherlands	United Kingdom	1
	Chrysanthemum	Cuttings	Colombia	United Kingdom	1
	Chrysanthemum	Cuttings	Israel	United Kingdom	2
	Gypsophila	Cut flowers	Netherlands	United Kingdom	1
	Oscimum basilicum	Vegetables	Israel	United Kingdom	1
	Oscimum basilicum	Vegetables	South Africa	United Kingdom	1
	Solanum sp.	Vegetables	Nigeria	United Kingdom	1
Liriomyza sp.	*Chrysanthemum*	Cut flowers	Israel	Germany	1
	Chrysanthemum	Cut flowers	Netherlands	Ireland	1
	Chrysanthemum	Cut flowers	Taiwan	France	2
	Gypsophila	Cut flowers	Israel	Ireland	7
Meloidogyne chitwoodi	*Solanum tuberosum*	Ware potatoes	Netherlands	United Kingdom	2
Meloidogyne graminicola	*Coprosma sp.*	Plants for planting	Israel	United Kingdom	1
Meloidogyne sp.	*Chrysalidocarpus lutescens*	Plants for planting	St Lucie	Germany	1
	Dahlia	Bulbs and tubers	Netherlands	Tunisia	1
Monilinia fructicola	*Prunus persica*	Fruits & Vegetables	South Africa	Germany	1
Parabemisia myricae	*Gardenia*	Cuttings	Sri Lanka*	United Kingdom	1
Phyllocnistis citrella	*Fortunella (prohibited)*	Cut flo. & branches	Israel	Netherlands	1
Phytophthora fragariae	*Fragaria ananassa*	Plants for planting	France	Poland	1
Plum pox potyvirus	*Prunus cerasifera*	Plants for planting	France	Hungary	1
Pratylenchus sp.	*Actinidia chinensis*	Plants for planting	Italy	Tunisia	1
	Begonia	Bulbs and tubers	France	Tunisia	1
	Canna	Bulbs and tubers	France	Tunisia	1
	Dahlia	Bulbs and tubers	France	Tunisia	1
	Rosa sp.	Plants for planting	France	Tunisia	1
	Rosa sp.	Plants for planting	Netherlands	Tunisia	1
	Vitis vinifera	Plants for planting	France	Tunisia	1
	Vitis vinifera	Plants for planting	Italy	Tunisia	1
	Vitis vinifera	Plants for planting	Portugal	Tunisia	1

* The EPPO Secretariat had no information on the occurrence of the pest concerned in this country

	Consignment	Type of commodity	Country of Origin	Country of destination	nb*
Potato viruses *(PVY, PVS, PVM)*	*Solanum tuberosum*	Seed potatoes ?	Poland	Netherlands	1
Potato viruses *(PVS, PLRV)*	*Solanum tuberosum*	Seed potatoes ?	Poland	Netherlands	1
Pyralidae	*Schefflera*	Cuttings	Sri Lanka	United Kingdom	1
Spodoptera littoralis	*Chrysanthemum*	Cuttings	Kenya	United Kingdom	1
	Various vegetable leaves	Vegetables	Nigeria	United Kingdom	1
Thrips palmi	*Cucurbita maxima*	Cut flo. & branches	Mauritius	France	1
	Dendrobium	Cut flowers	Thailand	Netherlands	1
	Dendrobium	Cut flowers	Thailand	France	5
	Ficus benjamina	Pot plants	USA	Netherlands	1
	Orchidaceae	Cut flowers	Singapore	France	2
	Orchidaceae	Cut flowers	Thailand	France	13
	Solanum melongena	Fruits & Vegetables	Mauritius	France	1
Thrips sp.	*Aconitum sp.*	Cut flowers	Israel	Germany	1
Tomato spotted wilt tospovirus	*Impatiens*	Cuttings	Israel	United Kingdom	5
Tylenchus sp.	*Chrysalidocarpus lutescens*	Plants for planting	St Lucie	Germany	1

- **Fruit flies intercepted**

	Consignment	Type of commodity	Country of Origin	Country of destination	nb*
Bactrocera cucurbitae	*Trichosanthes cucumerina*	Fruits & Vegetables	Mauritius	France	2
Bactrocera dorsalis	*Psidium guajava*	Fruits	Thailand	France	1
***Bactrocera* sp.**	*Mangifera indica*	Fruits	Kenya	France	1
	Mangifera indica	Fruits	Mauritius	France	1
	Mangifera indica	Fruits	Thailand	France	1
Ceratitis punctata	*Chrysophyllum sp.*	Fruits	Ghana	United Kingdom	1
***Ceratitis* sp.**	*Mangifera indica*	Fruits	Kenya	France	1
Non-European Tephritidae	*Mangifera indica*	Fruits	Mauritius	France	1

- **Wood and wood products intercepted**

	Consignment	Country of Origin	Country of destination	nb*
Ips typographus	Conifer (dunnage)	Poland	Ireland	1
	Dunnage	Latvia	United Kingdom	1
Scolytidae	Conifer (wood)	Switzerland	Ireland	1
Live insects	Conifer (wood)	Poland	Ireland	1
Insect galleries	Conifer (dunnage)	Poland	Ireland	1
	Conifer (wood)	Estonia	United Kingdom	1
	Conifer (wood)	Latvia	United Kingdom	1
	Picea (wood)	Latvia	United Kingdom	1
	Pinus/Picea (wood)	Estonia	United Kingdom	1

- Bonsai

Germany has intercepted 2 consigments of bonsai of *Pistacia* from Israel which were infested by *Helicotylenchus* and *Trichodorus*.
Germany, Netherlands and United Kindom have intercepted 35 consignments of bonsai plants (*Carmona*, *Celtis*, *Ficus*, *Fraxinus*, *Gardenia*, *Juniperus*, *Ligustrum*, *Murraya*, *Pinus*, *Podocarpus*, *Sageretia theezans*, *Serissa*, *Ulmus*, *Zelkova*) from China, which were infested by the following insect species *Aonidiella taxus*, *Cnidocampa flavescens*, and nematode species: *Dorylaimus* sp., *Helicotylenchus dihystera*, *Helicotylenchus* sp., *Hirschmanniella* sp., *Meloidogyne* sp., *Pratylenchus brachyurus*, *Pratylenchus* sp., *Rotylenchus robustus*, *Tylenchorhynchus crassicaudatus*, *Tylenchorhynchus leviterminalis*, *Xiphinema brasiliense* *Xiphinema* sp.

_____
* number of consignments.

Source: EPPO Secretariat 1996-06.

96/123 New book: Viruses of plants

CAB International has just published a new book by Brunt *et al* entitled 'Viruses of plants: descriptions and lists from the VIDE database". This complete and up-to-date collection covers over 900 viruses, with details on morphology, biochemical properties, taxonomy and hosts and summarized information on transmission, ecology and control, and geographical distribution. The great merit of this work is its completeness and consistency of treatment, which ensures that it immediately becomes the standard reference for all details on plant viruses. EPPO intends to use it to update the information in its data sheets (2nd edition of 'Quarantine Pests for Europe') and also to consolidate the viruses covered by the Bayer Coding System.
'Viruses of plants' derives from the VIDE database, developed by a team of virologists in Australia. This will continue to be updated and is available on Internet from the Bioweb server (URL http://biology.anu.edu.au).

Source: Brunt, A.; Crabtree, K.; Dallwitz, M.; Gibbs, A.; Watson, L. (1996) Viruses of plants: descriptions and lists from the VIDE database. 1484- pp. CABI, Wallingford, UK.7

Additional key words: publication

96/124 EPPO Electronic Documentation Service : REMINDER!

Many EPPO documents are now available in electronic form. They are available by e-mail at the following address: **mail-server@eppo.fr**

Current contents

EPPO Reporting Service from January to June 1996 (English and French). File names: rse-9601.doc, rse-9602.doc, rse-9603.doc, rse-9604.doc, rse-9605.doc, rse-9606.doc, rsf-9601.doc, rsf-9602.doc, rsf-9603.doc, rsf-9604.doc, rsf-9605.doc, rsf-9606.doc.

- EPPO Summaries of phytosanitary regulations
  - EU Member States (in 3 parts, in English and French). File names: sue-eua.exe,
    sue-eub.exe, sue-euc.exe, suf-eua.exe, suf-eub.exe, suf-euc.exe
  - Cyprus (English). File name; sue-cy.exe
  - Estonia (English). File name: sue-ee.exe
  - Israel (English). File name: sue-il.exe
  - Latvia (English). File name: sue-lv.exe
  - Malta (English). File name: sue-mt.exe

- Russia (English and French). File names: sue-ru.exe, suf-ru.exe
- Ukraine (English): File name: sue-ua.exe

- Texts of the phytosanitary regulations
  - EU Member States (in 3 parts, in English and French). File names: pre-eua.exe, pre-eub.exe, pre-euc.exe, prf-eua.exe, prf-eub.exe, prf-euc.exe
  - Estonia (English). File name: pre-ee.exe
  - Israel (English). File name: pre-il.exe
  - Malta (English). File name: pre-mt.exe
  - Russia (English). File name: pre-ru.exe
  - Ukraine (French). File name: prf-ua.exe
- EPPO Data sheets on Quarantine Pests (English and French). File names: dse-doc.exe, dsf-doc.exe
- EPPO Specific Quarantine Requirements (English and French). File names: sqe-doc.exe, sqf-doc.exe
- Glossary of Phytosanitary Terms (English and French). File names: gle-doc.exe, glf-doc.exe

How to access EPPO Electronic Documentation

To receive full instructions on how to obtain documents from EPPO Electronic Documentation, send an e-mail message to mail-server@eppo.fr with the following contents:

BEGIN
SEND instructions
END

Case must be respected, i.e. BEGIN, SEND and END must be in upper case, and instructions in lower case. You will then receive a reply by e-mail containing a plain text document with all information required to use the service. Please let the EPPO Secretariat know about your success and/or difficulties in connecting to the EPPO mail server !

Source: EPPO Secretariat, 1996-06.