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Reporting

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CONTENTS

96/043 New data on diseases of quarantine importance

By browsing through the literature, the EPPO Secretariat has noted the following items of interest concerning several pathogens and nematodes of quarantine importance.

New distribution records

- Barley stripe mosaic hordeivirus (EPPO A2 quarantine pest) was found for the first time in Portugal (in the district of Evora) during field surveys carried out in 1990 and 1991. Review of Plant Pathology, 75, p 117 (903).

- *Burkholderia* (*Pseudomonas*) *caryophylli* (EPPO A2 quarantine pest) was found in India on carnations. Review of Plant Pathology, 74, p 1060 (8214).

- Cherry leaf roll nepovirus (EPPO A2 quarantine pest) was found for the first time in Slovakia on walnut trees. Review of Plant Pathology, 75, p 65 (498).

- Citrus blight disease (EU Annex II/A1) is confirmed as present in the Valle del Cauca in Colombia. Review of Plant Pathology, 74, p 1042 (8077).

- *Erwinia chrysanthemi* (EPPO A2 quarantine pest) was found on potato in Morocco, in the region of Meknes during 1987-88. Review of Plant Pathology, 74, p 1024 (7920).

- *Erwinia amylovora* (EPPO A2 quarantine pest) was originally detected on pear trees in Karaj, Iran. A further survey showed the establishment of the disease in many fruit tree orchards in Qazvin and west Azarbayjan provinces. Review of Plant Pathology, 74, p 836 (6478).

- *Phaeoisariopsis griseola* (EPPO A2 quarantine pest) is present in Costa Rica. Review of Plant Pathology, 74, p 923 (7142).

- Tomato ringspot nepovirus (EPPO A2 quarantine pest) has been detected in Togo, on medicinal plants or weeds. Review of Plant Pathology, 75, p 147 (1357).

- Tomato yellow leaf curl geminivirus (EPPO A2 quarantine pest) is reported as present in the Northern Territory of Australia. Review of Plant Pathology, 74, p 832 (6446).

Detailed records

- *Phaeoisariopsis griseola* (EPPO A2 quarantine list) is present in the State of Pernambuco, Brazil. Review of Plant Pathology, 75, p 134 (1038).

- *Plasmopara halstedii* (EU Annex II/A2) is present in all the main sunflower growing areas of Morocco. Review of Plant Pathology, 75, p 159 (1225).

- *Pseudomonas syringae* pv. *pisi* (EPPO A2 quarantine pest) is present in the Wimmera region of Victoria (AU) where the incidence of the disease may reach 30 %. Review of Plant Pathology, 75, p 44 (327).

- *Xanthomonas campestris* pv. *citri* (EPPO A1 quarantine pest) is present in Maharashtra, India. Review of Plant Pathology, 74, p 844 (6541).

- *Xanthomonas campestris* pv. *phaseoli* (EPPO A2 quarantine pest) is present in the State of Parana, Brazil. Review of Plant Pathology, 75, p 134 (1036).

- *Xanthomonas campestris* pv. *vesicatoria* (EPPO A2 quarantine pest) was isolated, in 1990-91, from *Capsicum* and tomato fields in Andhra Pradesh and Tamil Nadu, India. Review of Plant Pathology, 74, p 831 (6442).

Source: **EPPO Secretariat, 1996-02.**

Additional key words: new records, detailed records

96/044 19th Session of the Asia and Pacific Plant Protection Commission (APPPC)

The 19th Session of the Asia and Pacific Plant Protection Commission took place in 1995-11-27/12-01 in the Philippines. Member countries of APPPC were invited to present their national phytosanitary situations, including new outbreaks. The EPPO Secretariat has selected some new or detailed records concerning quarantine pests.

- **Australia**

During 1993, *Bactrocera papayae* (EPPO A1 quarantine pest) spread to several Torres Strait islands from Papoua New Guinea. An eradication programme was implemented, and the fruit fly was eliminated from all infested islands except three. But it appeared again on a further four islands in 1995. An eradication campaign was

again carried out in 1995 and will continue until July 1996. In October, *B. papayae* was observed near Cairns (Queensland) and the surrounding districts. An eradication programme is being implemented.
An outbreak of *Xanthomonas fragariae* (EPPO A2 quarantine pest) occurred in the Adelaide Hills (South Australia) in March 1994. This is the second outbreak of the disease in Australia. The disease was confined to three growers. Affected plants were destroyed and no further infections have been found.
Bemisia tabaci B biotype (EPPO A2 quarantine pest) was found at Darwin (Northern Territory) in November 1994 (see EPPO RS 95/139) and then in New South Wales and Queensland. It has not become a pest of cotton at present but remains a threat to horticulture.
Spiralling whitefly (*Aleurodicus dispersus*) was first detected in the Torres Strait in 1991. In 1993, it was found on Thursday Island. Eradication was not successful and *Encarsia haitiensis* was introduced as a biocontrol agent. In March 1995, the pest was detected on Cape York (Queensland). Eradication was not successful and the pest is considered as established in this region.

- **China**

Severe outbreaks of *Helicoverpa armigera* (EPPO A2 quarantine pest) were observed in the northern cotton-growing regions, especially in Hebei, Shandong and Henan provinces in 1992 (see EPPO RS 95/112 and 94/056). These outbreaks led to 20 % decrease of cotton production in 1992. In the following cotton season, the pest occurred practically in the whole region of the Yellow and Yangtze rivers. The pest was recorded as present on 4 million hectares (corresponding to 75 % of the total cotton area) during 1994 and 1995. Integrated pest management programmes have been implemented to control the pest, and yield increases have been obtained.

- **Hong Kong**

*Bemisia tabaci** (EPPO A2 quarantine pest) was found on tomato. *Colletotrichum acutatum** (EU Annex II/A2) was observed on *Chrysanthemum*.

- **India**

During recent years leaf curl disease of cotton (probably cotton leaf curl geminivirus) was reported from certain pockets in Rajasthan, Haryana and Punjab.

- **Republic of Korea**

Newly recorded pests in Korea are the following: *Erwinia chrysanthemi* (EPPO A2 quarantine pest) on *Phalenopsis* in 1991; *Verticillium dahliae** on tomato in 1994, *Frankliniella occidentalis** (EPPO A2 quarantine pest) and *Thrips palmi* (EPPO A1 quarantine pest) on ornamentals in 1993, *Liriomyza trifolii** (EPPO A2 quarantine pest) on ornamentals in 1994.

T. palmi was first detected in a pepper plant, in a glasshouse on Cheju island in 1993, and is still present in the area. Eradication measures are being implemented.

- **Myanmar**

An outbreak of *Xanthomonas oryzae* pv. *oryzae* (EPPO A1 quarantine pest) has been found in 1993, in summer rice crops in the region of Mandalay. In February 1994, chilli plants (*Capsicum frutescens*) were wilted due to *Pseudomonas solanacearum* (EPPO A2 quarantine pest), in the district of Bago. These plants were grown from seeds imported from Thailand.

- **New Zealand**

A single male *Bactrocera tryoni* (EPPO A1 quarantine pest) has been found in late May 1995. Subsequent intensive monitoring provided no evidence of an established population.
Ciborinia camelliae[*] (EU Annex II/A1) was recorded on *Camellia japonica* in Wellington, in September 1993.

- **Pakistan**

Outbreaks of cotton leaf curl geminivirus were observed on cotton in Punjab province. The virus was first observed in 1967 on alternate hosts. In 1988 only 60 ha were reported as affected; in 1990, 200 ha were concerned. The situation became alarming in 1991 when 14.000 ha of cotton were damaged. In 1992, the virus spread to 500.000 ha and caused serious losses. In 1993, the disease spread to the whole cotton belt in Punjab with varying intensity. However, in 1994 there has been no substantial damage on cotton due to the introduction of tolerant varieties and better control methods against its vector, *Bemisia tabaci*.
In 1994, a serious outbreak of *Helicoverpa armigera* was observed on cotton in Punjab.

- **Vietnam**

Citrus greening bacterium (EPPO A1 quarantine pest) is present in Vietnam (see EPPO RS 94/156). The disease is present on 3.000 ha of citrus in the Mekong delta and causes high losses to citrus growers.

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* New records.

Source: 19th Session of APPPC, 1995-11-27/12-01, Los Baños (PH)

96/045 Differentiation of three *Bursaphelenchus* species by RAPD-PCR

Studies have been carried out in Germany on the use of RAPD-PCR to differentiate *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) from two other related species, *B. mucronatus* and *B. fraudulentus*. These species present close morphological similarities. Species identification is based mainly on tail features of the females. *B. xylophilus* is normally round-tailed, whereas *B. mucronatus* and *B. fraudulentus* have a more or less pointed (mucronate) tail tip. However, some North American *B. xylophilus* has both round-tailed (r-forms) and mucronate forms (m-forms). Diagnostic techniques based on nucleic acid sequence are more reliable than microscopy and enzyme electrophoresis. Therefore RAPD-PCR has been used on 14 isolates of *B. xylophilus* (r-forms from CN, JP, US and CA, and m-forms from US, CA), 12 isolates of *B. mucronatus* (from CA, FR, RU, DE, NO, FI, IT, JP, CN), 7 isolates of *B. fraudulentus* (from AT, HU, DE) and 2 undefined *Bursaphelenchus* (from US). 13 different oligonucleotide primers were used and most primers showed interspecific and intraspecific differences between isolates; 3 primers were retained as giving the most satisfactory results in consistently differentiating species. The results obtained showed that with two RAPD-PCR tests (using two primers) it is possible to differentiate *B. xylophilus* from *B. mucronatus* and *B. fraudulentus*. Until now, North American isolates were considered as being only *B. xylophilus*, but these studies showed that a Canadian isolate could clearly be reclassified as *B. mucronatus* (this confirms also earlier studies on this isolate). The two previously undefined *Bursphelenchus* isolates from USA were shown to be *B. fraudulentus* demonstrating, for the first time, the presence of this species in North America. Surprisingly, these isolates came from conifers (whereas in Europe *B. fraudulentus* occurs on deciduous trees). The authors wondered whether *B. fraudulentus* has a different mode of life in America or relies on a vector beetle attacking both coniferous and deciduous trees. These studies revealed considerable genetic differences between populations of *B. mucronatus*; in particular Asian provenances showed very unique patterns. The authors suggest that a subspecies status for European, Siberian and North American provenances of *B. mucronatus* should be considered (as the results of crossing experiments do not justify a separate species status). RAPD patterns have also revealed considerable intraspecific heterogeneity within *B. xylophilus*. The tested primers did not differentiate between round-tailed and mucronated populations of *B. xylophilus*. The authors conclude that further studies will be necessary on intraspecific differentiation of the various provenances of *B. xylophilus* and *B. mucronatus* and that the possibility of naturally occurring hybrid populations should also be considered.

Source: Braasch, H.; Burgermester, W.; K.-H. Pastrik (1995) Differentiation of three *Bursaphelenchus* species by means of RAPD-PCR.

Nachrichtenblatt des Deutschen Pflanzenschutzdienstes, 74, 310-315.

Additional key words: diagnostic method **Computer codes:** BURSXY

96/046 First report of citrus tristeza closterovirus in Louisiana (US)

During surveys carried out in Louisiana (US) at the Citrus Research Station in Port Sulphur, three orange (*Citrus sinensis* cv. Washington Navel) and one satsuma (*Citrus unshiu* cv. Owari) trees were found infected by citrus tristeza closterovirus (EPPO A2 quarantine pest). This the first report of the virus in Louisiana.

Source: Valverde, R.A.; Bourgeois, W.J.; Lee, R.F. (1996) First report of citrus tristeza closterovirus in Louisiana.
Plant Disease, 80(1), p 103.

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

96/047 Citrus blight is present in the Dominican Republic

In the Dominican Republic, symptoms of citrus blight disease (EU Annex II/A1) were observed in 1993 in numerous 8-year old orange trees (*Citrus sinensis* cv. Valencia grafted on *C. volkameriana*). The visual diagnosis of citrus blight was confirmed by three diagnostic tests. So far, the disease occurs in limited areas, but may become an increasing problem as most citrus plantations are on blight-sensitive rootstocks and are just reaching an age when blight develops. According to the EPPO Secretariat this is the first report of citrus blight disease in the Dominican Republic.

Source: Borbon, J.C.; Garnsey, J.M. (1995) Detection of citrus blight in the Dominican Republic.
Abstracts of presentations made at the 1995 APS annual meeting, Pittsburgh, Pennsylvania, 1995-09-12/16.
Phytopathology, 85(10), p 1194.

Additional key words: new record **Computer codes:** CSBXXX, DO

96/048 First report of *Oncastichus goughi* in Israel

The EPPO Secretariat has recently been informed by the Israeli Plant Protection Service that a new pest, *Oncastichus goughi* has been found in Israel on wax flower plants (*Chamelaucium uncinatum*). *O. goughi* is a gall-forming wasp which attacks only wax flowers. The pest has been detected in one region only, in the central part of the country. Action is being taken in order to eradicate the pest or at least to prevent its spread.

The EPPO Secretariat has tried to find more information on this pest but very little data is available in the literature. In their paper, Redak & Bethke (1995) explained that the major insect pest of *Chamelaucium uncinatum* is *O. goughi* which is a poorly studied gall-forming wasp. Economic damage due to this pest was originally reported from Australia in the mid-1980s. But the pest is now also present in California (US), as North American producers of *C. uncinatum* rely on Australian plant stock for the initial propagation of new varieties. *O. goughi* became established in California shortly after its discovery in Australia.
Adult female wasps lay eggs within the young leaf and stem tissues of the host plant. The eggs hatch and the larvae feed on the leaves and stems. In response to larval feeding, the plant forms an indeterminate "mark" type of gall around the area of initial oviposition and larval feeding. The gall enlarges as the larva feeds and grows. Galls will appear as simple swellings along young stems and the needle-like leaves ranging in size from 1.7 to 6.0 mm in length and from 1.0 to 1.9 mm in width. Pupation occurs inside the gall and adults emerge by a small emergence hole through the side of the gall. Mating, host-plant selection, and oviposition occur outside the gall. In Australia, the life cycle of the wasp lasts approximately 3 months with several complete generations per year. Gall formation renders the plants unmarketable. The authors have conducted studies on the use of traps and susceptibility of several cultivars. Field trials demonstrated that either yellow or green insect sticky traps could be used to catch adults, and that adult populations peaked during October and November. Four cultivars were examined during two years (White, Chinchilla, Vista, Lady Stephany); Lady Stephany was least susceptible to adult gall wasps, whereas the cultivar White was most susceptible.

Source: **Plant Protection Service of Israel, 1996-01**
Redak, R.A. Bethke, J.A. (1995) Detection and seasonal occurrence of gall-forming wasps (Hymenoptera: Eulophidae) on geraldton wax plant. **Journal of Economic Entomology, 88(2), 387-392.**

Additional key words: new pest **Computer codes:** IL

96/049 Situation of *Gonipterus scutellatus* in Spain

In 1991, *Gonipterus scutellatus* (EPPO A2 quarantine pest) was found for the first time in Galicia (ES) near Pontevedra, on *Eucalyptus globosus*, and serious defoliation was observed. Since then surveys have been carried out in eucalyptus plantations and showed that *G. scutellatus* has spread in Galicia around Pontevedra, within of radius of 45 km approximately. Control methods were studied and it appeared that release of the egg parasite *Anaphes nitens* is the most efficient means of control. The authors stressed the need to establish efficient control programmes to prevent further spread of this pest. The EPPO Secretariat had not previously documented the introduction of this pest into Spain.

Source: Mansilla, J.P.; Salinero, M.C.; Pérez, R. (1995) Révisión del área de dispersión de *Gonipterus scutellatus* Gyll. en Galicia.
Boletín de Sanidad Vegetal - Plagas, 21(2), 277-280.

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

96/050 Detection of potato stolbur phytoplasma in Spain

In Spain, the first reference to the possible presence of stolbur on tomatoes appeared in 1977. The disease was observed in 1978 in Murcia on tomato crops, in 1980 on capsicum in the Ebro valley, in 1980 and 1982 in capsicum near Zaragoza and in 1982 near Badajoz and Logroño. In summer 1994, near Valencia, serious symptoms were observed in a tomato field. Symptoms were characterized by flower deformation, unusually large sepals, hard fruit, proliferation of axillary shoots, smaller leaves on the terminal shoots and a purple discoloration of the leaves. Near this tomato plot, capsicum plants showed clear symptoms of yellowing and stunting. By PCR techniques, potato stolbur phytoplasma (EPPO A2 quarantine pest) was detected in symptomatic tomato and capsicum plants. These results confirms the presence of potato stolbur phytoplasma in Spain.

Source: Avinent, L.; Llácer, G. (1995) El "stolbur" del tomate: detección en España mediante la reacción en cadena de la polimerase (PCR).
Boletín de Sanidad Vegetal, Plagas, 21(3), 417-423.

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

96/051 *Phytophthora fragariae* var. *rubi* found in Chile

From October to December 1993, *Phytophthora* spp. were isolated from diseased raspberry plants collected from 18 plantations in Chile. Plantations were located along a north-south axis of 1000 km long, from Nogales to Osorno. The following *Phytophthora* species were found: *Phytophthora fragariae* var. *rubi* (EPPO A2 quarantine pest), *P. megasperma*, *P. cryptogea* and *P. citricola*. *P. fragariae* var. *rubi* was present in the central and southern part of the region studied. The authors pointed out that this is the first report of this pathogen in the southern hemisphere.

Source: Wilcox, W.F.; Latorre, B.A. (1995) Identity and distribution of *Phytophthora* spp. causing root rot of raspberry in Chile.
Abstracts of presentations made at the 1995 APS annual meeting, Pittsburgh, Pennsylvania, 1995-09-12/16.
Phytopathology, 85(10), p 1150.

Additional key words: new record **Computer codes:** PHYTRU, CL

96/052 *Phaeoramularia angolensis* is present in Guinea

It is reported that *Phaeoramularia angolensis* (EU Annex II/A1) has been present in Guinea since 1993 and now theatens the citrus production and exports of this country. In some places, 100 % losses at harvest have been observed. According to the EPPO Secretariat, this is a new record.

Source: Anonymous (1996) Phyto Régions...Afrique (Guinée) - Oranges noires.
Phytoma - La Défense des Végétaux, No. 480, p 3.

Additional key words: new record **Computer codes:** GN

96/053 *Bemisia tabaci* biotype B in the Pacific region

In the Pacific region, *Bemisia tabaci* biotype B (EPPO A2 quarantine pest), also referred to as *Bemisia argentifolii*, is reported as present in Hawaii (US), Guam, New Caledonia and Australia where it has not caused a great problem so far. In Cook Islands (Rarotonga and Aitutaki), a severe outbreak was observed in 1994. The whitefly mainly attacked vegetables (aubergine, cabbage, cucumber, tomato, pumpkin and water melon). Control of the pest with pesticides met some difficulties, and it is planned to introduce natural enemies. The records of *B. tabaci* in Cook Islands, Guam and New Caledonia are new according to the EPPO Secretariat.

Source: Anonymous (1995) Outbreak of the silverleaf whitefly in the Cook Islands.
Ag Alert, No. 13, 2 pp.

Additional key words: new records **Computer codes:** BEMITA, CK, GU, NC

96/054 New geminivirus of tomato in Mexico

Tomatoes grown in the Culiacan Valley of north-western Mexico are affected by numerous diseases caused by whitefly-transmitted geminiviruses. During the last two growing seasons, one disease became prevalent. Symptoms are characterized by vein yellowing and chlorosis of newly infected leaves, purple discoloration of older leaves, stunting and distorted growth. It was found that the disease is due to a geminivirus, but specific DNA probes for tomato yellow leaf curl (EPPO A2 quarantine pest), tomato mottle (EU Annex I/A1) and tomato leaf crumple geminiviruses failed to detect it. Further comparative studies demonstrated that this virus is distinct from previously characterized whitefly-transmitted geminiviruses.

Source: Gilbertson, R.L.; Hou, Y.M.; Guzman, P.; Carvalho, M.G. (1995) A new geminivirus associated with chlorosis of tomatoes in northwestern Mexico.
Abstracts of presentations made at the 1995 APS annual meeting, Pittsburgh, Pennsylvania, 1995-09-12/16.
Phytopathology, 85(10), p 1138.

Additional key words: new pest **Computer codes:** MX, LYPES

96/055 Tomato spotted wilt tospovirus causes a serious disease of chickpea (*Cicer arietinum*) in Brazil

A new and serious disease of chickpea (*Cicer arietinum*) was observed in Brazil, in the district of Brasilia. Approximately 5-10 % of the plants grown in this region showed chlorosis, necrosis and malformation of apical leaves. Early infected plants usually developed general chlorosis and stunting, but no pod symptoms. Studies have demonstrated that tomato spotted wilt tospovirus (potential EPPO A2 quarantine pest) was the causal agent of the disease. The authors thought that this is the first report of tomato spotted wilt tospovirus causing a disease of chickpea.

Source: Boiteux, L.S.; De Ávila, A.C.; Giordano, L.B.; Lima, M.I.; Kitajima E.W. (1995) Apical chlorosis disease of chickpea (*Cicer arietinum*) caused by tomato spotted wilt virus in Brazil.
Journal of Phytopathology, 143(10), 629-631.

Additional key words: new host plant **Computer codes:** TMSWXX, CIEAR, BR

96/056 Quarantine treatment to control *Ceratitis capitata*, *Bactrocera cucurbitae* and *B. dorsalis* in papaya

A forced hot-air quarantine treatment to control eggs and larvae of *Ceratitis capitata* (EPPO A2 quarantine pest), *Bactrocera cucurbitae* and *B. dorsalis* (both EPPO A1 quarantine pests) in papaya (*Carica papaya*) has been developed in Hawaii (US). The treatment of papaya is the following: forced hot-air at 48.5 ± 0.5 °C with 40-60 % RH until the fruit centre temperature reached 47.2 °C. The duration of treatment necessary to reach the probit 9 quarantine security is 3.5 ± 0.25 h. When the fruit centre reaches 47.2 °C, papayas are immediately cooled in water until the fruit centre temperature is = 30 °C. Treated fruits were not damaged by this treatment. However, the characteristic odour of papaya was not as strong in treated fruit as in the controls. The authors concluded that this single-stage, forced hot-air treatment is an efficacious quarantine treatment for papayas.

Source: Armstrong, J.W.; Hu, B.K.S; Brown, S.A. (1995) Single-temperature forced hot-air quarantine treatment to control fruit flies (Diptera: Tephritidae) in papaya.
Journal of Economic Entomology, 88(3), 678-682.

Additional key words: quarantine treatment **Computer codes:** CERTCA, CIAPA, DACUCU, DACUDO

96/057 Quarantine treatment to control *Ceratitis capitata*, *Bactrocera cucurbitae* and *B. dorsalis* in carambola

A cold quarantine treatment to control eggs and larvae of *Ceratitis capitata* (EPPO A2 quarantine pest), *Bactrocera cucurbitae* and *B. dorsalis* (both EPPO A1 quarantine pests) in carambola (*Averrhoa carambola*) has been developed in Hawaii (US). The treatment of carambola is the following: cold storage at 1.1 ± 0.6 °C for 12 days. With this treatment the probit 9 quarantine security is ensured. This treatment was approved by USDA-APHIS as a quarantine treatment for Hawaiian carambolas potentially infested with these three species of fruit flies.

Source: Armstrong, J.W.; Silva, S.T.; Shishido, V.M. (1995) Quarantine cold treatment for Hawaiian carambola fruit infested with Mediterranean fruit fly, melon fly, or oriental fruit fly (Diptera: Tephritidae) eggs and larvae.
Journal of Economic Entomology, 88(3), 678-682.

Additional key words: quarantine treatment **Computer codes:** CERTCA, DACUCU, DACUDO

96/058 Survival of *Ceratocystis fimbriata* var. *platani* in the soil

Several trials have been carried out in France in order to assess the survival of *Ceratocystis fimbriata* var. *platani* (EPPO A2 quarantine pest) in the soil. Results have shown that the fungus could survive for at least five years in large pieces of infected wood and infected sawdust buried in the soil. The authors stressed that due to this long survival, replantation of planes on places previously infested presents a high risk, as it is extremely difficult to remove all infected tissues in the soil after the destruction of diseased trees. In addition, machinery should not pass over these infested sites as it could then spread the fungus to other places.

Source: Grosclaude, C.; Olivier, R.; Romiti, C. (1996) Chancre coloré du platane, comment l'agent responsable peut survivre dans le sol.
Phytoma - La Défense des Végétaux, No. 479, 41-42.

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

96/059 Geographical distribution information for pests in Russia

In the past, EPPO held information on the geographical distribution of pests in the USSR. Recently, it has been possible in many cases to obtain specific information for pests in former Soviet republics. For the Russian Federation itself, this information was related to three very large areas (European Russia, Siberia, Far East), and this is how the information appears in the PQR data base system.
After discussion with the Quarantine Inspection Service of Russia, it was noted first that information on quarantine pests of the Russian A2 list is available for each of the provinces, territories and republics of the Russian Federation (76 areas in all). Such information will be made available progressively in the Reporting Service. It has also been agreed that information on other pests should relate to more useful units than the three referred to above. Six units have been agreed for future reporting purposes: Northern, Central and Southern Russia; Western and Eastern Siberia; Far East. These can be specifically defined as follows:

Northern Russia
Arkhangel'sk, Kareliya, Komi, Murmansk

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'yanovsk, Vladimir, Vologda, Yaroslavl'

Southern Russia
Adygeya, Astrakhan', Belgorod, Dagestan, Ingushetiya, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Kursk, Orenburg, Rostov, Samara, Saratov, Severnaya Osetiya-Alaniya, Stavropol, Volgograd, Voronezh

Western Siberia
Altai, Chelyabinsk, Kemerovo, Khakassiya, Kurgan, Novosibirsk, Omsk, Sverdlovsk, Tomsk, Tyumen

Eastern Siberia
Buryatiya, Chita, Irkutsk, Kamchatka, Krasnoyarsk, Magadan, Sakha (Yakutiya), Tyva

Far East
Amur, Evrei, Khabarovsk, Primor'e, Sakhalin

Source: **EPPO Secretariat, 1996-02.**

96/060 EPPO report on selected intercepted consignments

The EPPO Secretariat has collected the intercepted consignments received from August until December 1995, from the following countries: Austria, Belgium, Cyprus, France, Germany, Greece, Ireland, Italy, Jersey, Netherlands, Portugal, Sweden, Switzerland, Tunisia, United Kingdom. When a consignment has been reexported and the country of origin is unknown, the reexporting country is indicated into brackets.

Concerning this later point, it must be noted that in the EPPO RS 95/175, the consignment of *Syngonium podophyllum* infested by *Echinothrips americanus* and intercepted by United Kingdom did not came from Denmark. Denmark was only a reexporting country (and should have been indicated into brackets). *Echinothrips americanus* is not present in Denmark.

In addition, the EPPO Secretariat has selected only interceptions made because of the presence of pests; other interceptions due to prohibited commodities, missing or invalid certificates are not indicated here. It must be pointed out that this data is only partial, as many EPPO countries have not yet sent their interceptions for 1995; therefore no statistics can be made ! EPPO will continue to publish yearly reports containing all intercepted consignments received at the headquarters of the Organization.

	Consignment	**Country of Origin**	**Country of destination**	**nb***
Bemisia tabaci	*Corchorus olitorius*	Cyprus	United Kingdom	1
	Chrysanthemum	Netherlands	Ireland	3
	Chrysanthemum	Netherlands	United Kingdom	5
	Chrysanthemum	Spain	Ireland	1
	Euphorbia pulcherrima	(France)	United Kingdom	1
	Euphorbia pulcherrima	Germany	United Kingdom	2
	Euphorbia pulcherrima	Netherlands	United Kingdom	2
	Euphorbia pulcherrima	USA	Netherlands	1
	Fuchsia	Israel	Netherlands	2
	Hibiscus	USA	Germany	1
	Hibiscus	USA	Netherlands	2
	Ixora	Israel	Netherlands	2
	Lantana	Israel	France	1
	Leea coccinea ?	(Netherlands)	United Kingdom	1

	Consignment	Country of Origin	Country of destination	nb*
	Mentha	Cyprus	United Kingdom	1
	Origanum majorana	Israel	United Kingdom	1
	Solidago	Israel	United Kingdom	6
	Syngonium	(Netherlands)	United Kingdom	1
	Verbena	Israel	France	1
Clavibacter michiganensis* subsp. *michiganensis	*Lycopersicon esculentum* (seeds)	Ukraine	Italy	1
Cuscuta campestris	*Trifolium pratense* (seeds)	Morocco	Tunisia	1
	Trifolium pratense (seeds)	Egypt	Tunisia	1
Colletotrichum acutatum	*Fragaria ananassa* (plants)	Portugal	United Kingdom	3
Ditylenchus dipsaci	*Vicia* sp. (seeds)	Albania	Italy	1
Discula destructiva	*Cornus florida*	Unknown origin	United Kingdom	1
Echinothrips americanus	*Dieffenbachia*	(Belgium)	United Kingdom	1
	Dieffenbachia	Netherlands	United Kingdom	1
	Dieffenbachia	(Netherlands)	United Kingdom	12
	Hibiscus	Netherlands	United Kingdom	1
	Syngonium	(Netherlands)	United Kingdom	2
	Syngonium	Netherlands	United Kingdom	2
Frankliniella occidentalis	*Agapanthus*	United Kingdom	Jersey	1
	Alstroemeria	Guernsey	Jersey	1
	Amaranthus	Guernsey	Jersey	1
	Argyranthemum	United Kingdom	Jersey	1
	Chrysanthemum	Netherlands	Jersey	1
	Chrysanthemum	United Kingdom	Jersey	1
	Dendrobium	Thailand	Germany	1
	Dianthus	Colombia	Jersey	2
	Dianthus	Italy	Jersey	1
	Dianthus	Turkey	Jersey	1
	Gerbera	Guernsey	Jersey	1
	Gerbera	United Kingdom	Jersey	1
	Gypsophila	Guernsey	Jersey	1
	Gypsophila	United Kingdom	Jersey	1
	Pelargonium	Guernsey	Jersey	1
	Ranunculus	Guernsey	Jersey	1
	Saintpaulia ionantha	United Kingdom	Jersey	1
	Solidago	United Kingdom	Jersey	1
	Statice	Guernsey	Jersey	1
	various ornamentals	Guernsey	Jersey	1
	various ornamentals	United Kingdom	Jersey	1
***Helicotylenchus* sp.**	*Phoenix roebelenii*	Costa Rica	Germany	1
Helicoverpa armigera	*Dianthus*	Israel	Netherlands	29
	Dianthus	Kenya	Netherlands	17
	Dianthus	Morocco	France	1
	Dianthus	Zimbabwe	Netherlands	3
	Parcelaria ?	Israel	United Kingdom	1
	Pelargonium	Côte d'Ivoire	United Kingdom	1
	Phaseolus vulgaris	Senegal	Belgium	1
	Pisum sativum	Zimbabwe	United Kingdom	5

	Consignment	Country of Origin	Country of destination	nb*
Helicoverpa zea	*Capsicum*	Mexico	United Kingdom	1
	Capsicum	USA	United Kingdom	1
Leptinotarsa decemlineata	*Lactuca sativa*	France	United Kingdom	1
	Lactuca sativa	Italy	United Kingdom	1
Liriomyza huidobrensis	*Antirrhinum*	Netherlands	United Kingdom	2
	Apium graveolens	Italy	United Kingdom	1
	Bellis perennis	Netherlands	United Kingdom	3
	Beta cicla	Cyprus	United Kingdom	1
	Campanula	Netherlands	United Kingdom	1
	Cestrum	Israel	Germany	1
	Chrysanthemum	Colombia	United Kingdom	1
	Chrysanthemum	Israel	Netherlands	1
	Chrysanthemum	Netherlands	Ireland	12
	Chrysanthemum	Netherlands	Portugal	1
	Chrysanthemum	Netherlands	United Kingdom	13
	Datura	Netherlands	United Kingdom	1
	Dianthus	Netherlands	United Kingdom	1
	Gaillardia	Netherlands	United Kingdom	1
	Gypsophila	Italy	United Kingdom	1
	Gypsophila	Guernsey	Jersey	1
	Gypsophyla	Netherlands	Ireland	10
	Gypsophila	Netherlands	United Kingdom	28
	Gypsophila	(Netherlands)	United Kingdom	4
	Lisianthus	Netherlands	United Kingdom	1
	Ocimum basilicum	Israel	United Kingdom	1
	Petunia	Germany	United Kingdom	1
	Pisum sativum	Guatemala	United Kingdom	1
	Primula	Netherlands	United Kingdom	6
	Primula	(Netherlands)	United Kingdom	1
	Primula acaulis	Netherlands	United Kingdom	4
	Primula obconica	(Belgium)	United Kingdom	1
	Primula obconica	(Netherlands)	United Kingdom	1
	Primula variabilis	Italy	United Kingdom	1
	Primula variabilis	Netherlands	United Kingdom	1
	Viola	Netherlands	United Kingdom	8
	unspecified plant	Netherlands	United Kingdom	1
Liriomyza sativae	*Brassica sp.*	Thailand	United Kingdom	1
Liriomyza trifolii	*Allium*	Egypt	United Kingdom	1
	Chrysanthemum	Israel	Netherlands	1
	Chrysanthemum	Japan	Netherlands	1
	Chrysanthemum	Netherlands	Ireland	3
	Chrysanthemum	Netherlands	United Kingdom	1
	Coriandrum sativum	Cyprus	United Kingdom	1
	Ocimum basilicum	Côte d'Ivoire	United Kingdom	1
	Solidaster	Kenya	United Kingdom	1

	Consignment	Country of Origin	Country of destination	nb*
***Liriomyza* sp.**	*Bougainvillea*	Mexico	Netherlands	1
	Chrysanthemum	Iran	Sweden	1
	Gypsophila	Israel	Germany	4
	Gypsophila	Netherlands	Portugal	2
Maconellicoccus hirsutus	*Annona*	India	United Kingdom	1
***Meloidogyne* sp.**	*Agapanthus*	Italy	Tunisia	1
	Areca	St Lucia	Germany	1
	Chrysalidocarpus lutescens	Dominican Republic	Germany	2
	Fragaria ananassa	Egypt	Tunisia	1
Phytophthora fragariae	*Fragaria ananassa*	Germany	Switzerland	1
Plum pox potyvirus	*Prunus cerasus*	Hungary	Netherlands	1
	Prunus domestica	Poland	Netherlands	1
	Prunus domestica	Spain	United Kingdom	1
	Prunus sp.	Romania	Netherlands	1
***Pratylenchus* sp.**	*Chrysalidocarpus lutescens*	Honduras	Germany	1
	Fragaria ananassa	France	Tunisia	1
	Ilex crenata	Japan	Germany	1
	Ornamentals	Malaysia	Germany	1
Puccinia horiana	*Chrysanthemum* (plants)	Czech Republic	Germany	2
Radopholus similis	*Calathea*	Costa Rica	Netherlands	1
Rotylenchulus reniformis	*Dracaena marginata*	Dominican Republic	Germany	1
***Rotylenchus* sp.**	*Chrysalidocarpus lutescens*	Honduras	Germany	1
Spodoptera littoralis	*Mentha* (leaves)	Cyprus	United Kingdom	1
	Pelargonium grandiflorum (cuttings)	Israel	United Kingdom	1
	Mixed leaves (vegetables)	Nigeria	United Kingdom	2
Thrips palmi	*Orchidaceae*	Thailand	Finland	3
***Trichodorus* sp.**	*Ilex crenata*	Japan	Germany	1
Tylenchorhynchus sp.	*Chrysalidocarpus lutescens*	Honduras	Germany	1
	Ornamentals	Malaysia	Germany	1
Xanthomonas campestris* pv. *vesicatoria	*Capsicum annuum* (seeds)	Ukraine	Italy	1
	Lycopersicon esculentum (seeds)	Ukraine	Italy	2
Xanthomonas fragariae	*Fragaria ananassa*	Argentine	Tunisia	1
	Fragaria ananassa	France	Tunisia	
	Fragaria ananassa	Germany	Switzerland	1
	Fragaria ananassa	Italy	Tunisia	1
	Fragaria ananassa	Spain	Tunisia	1
	Fragaria ananassa	Switzerland	Germany	1
	Fragaria ananassa	USA	Tunisia	1

- **Fruit flies intercepted on fruits**

	Consignment	Country of Origin	Country of destination	nb*
Bactrocera dorsalis	*Annona squamosa*	Thailand	France	1
	Averrhoa carambola	Malaysia	Netherlands	1
	Mangifera indica	India	France	2
	Psidium goyava	Vietnam	France	1
	Syzygium	Vietnam	France	1
***Bactrocera* sp.**	*Annona squamosa*	Thailand	France	1
	Annona squamosa	Vietnam	France	1
***Ceratitis* sp.**	*Citrus sinensis*	South Africa	Austria	1
	Mangifera indica	Cameroon	France	3
	Mangifera indica	Mali	France	3
	Mangifera indica	Senegal	France	2
Dacus ciliatus	*Mangifera indica*	Guinea	France	1
Non-European Tephritidae	*Mangifera indica*	Côte d'Ivoire	France	1

- **Wood and wood products intercepted**

	Consignment	Country of Origin	Country of destination	nb*
Ips typographus	Coniferae dunnage	(Latvia)	United Kingdom	1
	Picea dunnage	(Belgium)	United Kingdom	1
	Picea	(Latvia)	United Kingdom	1
Scolytidae	Fire wood	Bulgaria	Greece	1
	Coniferae	(Belgium)	Ireland	1
Live beetles	Pinus sylvestris	(Sweden)	United Kingdom	1
	Pinus/Picea dunnage	(Latvia)	United Kingdom	1
	Picea dunnage	(Latvia)	United Kingdom	1
Insect galleries	Picea - Dunnage	(Latvia)	United Kingdom	1

* number of consignments.

- Bonsai

24 consignments of various bonsai plants (*Acer*, *Carmona*, *Podocarpus*, *Sageretia*, *Serissa*, *Zelkova*) from China have been intercepted by Germany and United Kingdom, because of nematode and scale infestations. The following species and genera have been found:
Aphelenchoides besseyi, *Aphelenchus* sp., *Criconemella* sp., *Dorylaimidae*, *Helicotylenchus* sp., *Helicotylenchus* sp., *Helicotylenchus dihystera*, *Hirschmanniella* sp., *Paratrophorus* sp., *Pratylenchus* sp., *Rhizoecus* sp., *Rhizoecus hibisci*, *Trichodorus* sp., *Tylenchorhynchus* sp., *Tylenchorhynchus crassicaudatus*, *Tylenchorhyncus leviterminalis*, *Tylenchus* sp., *Xiphinema* sp.

Source: **EPPO Secretariat 1996-02.**