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Reporting

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CONTENTS

98/060 New data on quarantine pests

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

New geographical records

Liriomyza trifolii (EPPO A2 quarantine pest) occurs in Sudan where it damages faba bean (*Vicia faba*) in particular. This pest was reported for the first time in the mid-1980s when production of faba bean was extended to the south of Khartoum (traditionally it was grown in the northern part of Sudan). Review of Agricultural Entomology, 86(4), p 450 (3601).

Pear decline phytoplasma (EPPO A2 quarantine pest) is suspected in Taiwan. Symptoms of a new pear disease characterized by red leaves was discovered in Central Taiwan. Affected trees usually die within 2-3 years. The disease is associated with phytoplasmas and is thought to be pear decline. *Psylla qianli* is suspected to be a vector. If confirmed, this would be the first report of pear decline phytoplasma in Taiwan. Review of Plant Pathology, 77(4), p 440 (3247).

Detailed records

During a survey in Bangladesh, *Aphelenchoides besseyi* (EPPO A2 quarantine pest) was found in 25.3 % of the collected samples of rice seeds. Samples were collected from 15 districts in Bangladesh, the highest nematode infestation was found in a sample from Rangpur (45 nematodes from 100 seeds); the nematode was not found in 5 districts. This confirms earlier reports of *A. besseyi* in Bangladesh. Nematological Abstracts, 67(1), p 34 (274).

Dendroctonus brevicomis (EPPO A1 quarantine pest) is present on *Pinus ponderosa* in the Davis mountains of west Texas (US). Review of Agricultural Entomology, 86(4), p 486 (3890-3891).

New host plants

In Assam, India, it was shown that the weed *Ageratum conyzoides* could be an important host of *Xanthomonas axonopodis* pv. *citri* (EPPO A1 quarantine pest) and may serve as a significant source of primary inoculum in citrus orchards for the next season. Review of Plant Pathology, 77(4), p 477 (3507).

Source: EPPO Secretariat, 1998-02.

Additional key words: new records, detailed records **Computer codes:** APLOBE, DENCBR, LIRITR, PRDXXX, XANTCI, BDSD, TW, US.

98/061 *Stephanitis takeyai* found for the first time in United Kingdom

In United Kingdom, an outbreak of the andromeda lace bug, *Stephanitis takeyai*, was found in a garden open to the public in the county of Surrey. The insect is causing damage to *Pieris japonica* (andromeda) and *Rhododendron*. The Plant Protection Service is taking action to eradicate this pest and investigate the possible source of introduction. It is noted that the risk of spread from this site is very limited as there is no plant propagation. However, investigations will be made to determine the extent of this outbreak.

Stephanitis takeyai (Hemiptera: Tingidae) is a pest of ornamental *Ericaceae* which originates from Japan. Damage is caused by nymphs and adults sucking sap from the lower surface of the leaves, causing mottling and sometimes death of the plants. During the course of this century, *S. takeyai* was introduced into North America (with another species *S. pyrioides*). Neal and Oliver (1991) noted that in North America, both species have become severe pests and are difficult to control because eggs are inserted and concealed with frass in leaf tissue and are not affected by the normal treatments. The preferred host of *S. takeyai* is *Pieris japonica* (*P. floribunda* and *P. floribunda* x *P. japonica* can also be hosts but are less suitable). The pest can attack azalea and rhododendron. In Japan, another important host is *Lyonia elliptica*. In USA, attacks of *S. takeyai* were reported on spicebush (*Lindera benzoin*) and sassafras (*Sassafras albidum*), but these plants were generally growing near highly infested *P. japonica* (Wheeler, 1977). Biological studies carried out in the laboratory and the field in USA (Dunbar *et al*., 1974) showed that the egg stage lasted 9-14 days and that the 5 nymphal instars developed in 12-15 days at 25 °C. The duration from egg to adult is 23 days, pre-oviposition and oviposition periods were respectively 6.6 days and 14.8 days. Adult females could live up to 44 days, and adult males up to 63 days. A female could lay up to 378 eggs. The insect overwinters as egg stage in leaves of infested plants. During field trials in Connecticut (US) carried out in 1973, four generations were observed, hatching started on the 28th April and adults could be seen until the 10th December.

Note: Pictures of adults and damage can be viewed on Internet (http://entweb.clemson.edu/cuentres/cesheets/ornament/ce130.htm and cs131.htm).

Source: **Plant Protection Service of United Kingdom, 1998-03.**

Dunbar, D.M.; Beard, R.L.; Beard, R.L. (1974) Bionomics of the andromeda lacebug, *Stephanitis takeyai*.
25th Anniversary Memoirs, Connecticut Entomological Society, 277-289. (abst.)

Neal, J.W.; Oliver, J.E. (1991) Unidirectional asymmetric sexual hybrid in sympatric *Stephanitis* lace bugs (Hemiptera: Tingidae).
Annals of the Entomological Society of America, 84(5), 480-487.

Tsukada, M. (1994) Seasonal host alternation by the andromeda lace bug, *Stephanitis takeyai* (Heteroptera: Tingidae) between its two main host-plant species.
Researches on Population Ecology, 36(2), 219-224. (abst.)

Wheeler, A.G. Jr (1974) Spicebush and sassafras as new North American hosts of andromeda lace bug, *Stephanitis takeyai* (Hemiptera: Tingidae).
Proceedings of the Entomological Society of Washington, 79(2), 168-171 (abst.)

Additional key words: new record **Computer codes:** STEPTA, GB

98/062 *Trogoderma granarium* is not present in United Kingdom

The Plant Protection Service of United Kingdom has informed the EPPO Secretariat that the records concerning *Trogoderma granarium* (EPPO A2 quarantine pest) in PQR and in the second edition of Quarantine Pests for Europe were misleading. *T. granarium* has been found in the past in UK but is not established. It is absent from grain stores for export as confirmed by surveys carried out over the last 10 years. No consignments of grain from UK have been rejected because of *T. granarium* over the same period. The pest has very occasionally been found in certain specialist processors associated with imported animal feed stuffs, and has on all occasions been eliminated. *T. granarium* should be considered as absent in UK.

Source: **Plant Protection Service of United Kingdom, 1998-03.**

Additional key words: denied record **Computer codes:** TROGGA, GB

98/063 Details on some quarantine pests in Italy

As every year, the Italian journal 'Informatore Fitopatologico' presents the phytosanitary status of the main crops in the Italian regions. The EPPO Secretariat has extracted the following details on several pests and diseases of quarantine interest.

Cameraria ohridella (horse chestnut leafminer): It was first found in Italy in Alto Adige (see EPPO RS 96/211). In Friuli-Venezia Giulia, a severe outbreak was observed in Trieste, and the insect is now present in most parts of the region.

Erwinia amylovora (EPPO A2 quarantine pest): In Lombardia, *E. amylovora* has been found in 7 pear orchards in the province of Mantova. In two nurseries of the provinces of Bergamo and Mantova, several plants of apple, pear, *Cotoneaster* and *Pyracantha* were found infected.
In Veneto, fireblight has been found for the first time in 1997 in a few pear orchards, in the provinces of Rovigo and Verona.
In Emilia-Romagna, the incidence of the disease has considerably increased. 700 foci of *E. amylovora* were reported in 1997, essentially on pear (over 90 %). It can be recalled that the first 2 foci in this region were reported in October 1994 (EPPO RS 95/114). In addition, the disease has sporadically been observed on apple, *Crataegus*, *Cydonia*, loquats, *Pyracantha*. Affected pear trees are located in the provinces of Bologna, Ferrara, Modena, Reggio Emilia and Ravenna.
In all regions concerned, infected plants have been destroyed and measures to prevent any further spread are being taken.

Plum pox potyvirus (EPPO A2 quarantine pest): In Lombardia, the disease is progressively spreading. In 1997, 200 symptomatic plants were observed in 5 plum orchards and 1 peach orchard in the provinces of Brescia and Mantova.
The disease occurs in Veneto. The M strain is present in the peach-producing area of the province of Verona.
In Emilia-Romagna, new foci of plum pox potyvirus have been found in the provinces of Modena, Bologna and Ferrara.
In Abruzzo, a single focus of plum pox has been found on plum (cv. Grossa di Felisio)
In all regions concerned, infected trees have been destroyed and measures to prevent any further spread are being taken.

Xanthomonas campestris pv. *pruni* (EPPO A2 quarantine pest): In Friuli-Venezia Giulia, the disease occurred at unusually high level in 1997. It is also present in Emilia-Romagna and Abruzzo. It is spreading on peach in Lazio.

Xanthomonas fragariae (EPPO A2 quarantine pest) has been found in the region Piemonte and Valle d'Aosta on a few cultivars, and also in Emilia-Romagna in a few nurseries.

Source: (1998) Bilancio fitosanitario.
Informatore Fitopatologico, no. 3, 4-38.
Informatore Fitopatologico, no. 4, 8-41.

Additional key words: detailed records **Computer codes:** ERWIAM, LITHOD, PLPXXX, XANTFR, XANTPR, IT

98/064 Potato tuber necrosis ringspot disease in Italy

In 1997, in Piemonte (Northern Italy), potato tubers of various cultivars showed symptoms of necrotic rings. Analysis, using test plants and ELISA tests, revealed that the virus involved was a necrotic strain of PVY. Immunocapture RT-PCR further characterized the strain as PVY^{NTN}. The strain PVY^{NTN} is responsible for the potato tuber necrosis ringspot disease which has recently been observed in several European countries (see also EPPO RS 97/180). In Italy, symptoms of potato tuber necrosis ringspot disease are also reported from Abruzzo, Emilia-Romagna, Lombardia and Veneto.

Source: Roggero, P.; Dellavalle, G.; Lisa, V.; Weidemann, H.L. (1998) [Identification of PVY^{NTN} in potato tubers with necrotic ringspot, in Piemonte, Northern Italy].
Informatore Fitopatologico, no. 3, 76-79.

(1998) Bilancio fitosanitario.
Informatore Fitopatologico, no. 3, 4-38.
Informatore Fitopatologico, no. 4, 8-41.

Additional key words: new record. **Computer codes:** PVYXXX, IT

98/065 Details on *Clavibacter michiganensis* subsp. *michiganensis* in Italy

At the end of February 1997, symptoms of *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 quarantine pest) were observed on tomato cultivated in an unheated greenhouse of a nursery in the province of Latina (Lazio region, central Italy). The disease was observed two months after sowing and its incidence was high (15-20 % of the plants). The high temperatures prevailing inside the glasshouse (about 25-30 °C) and the presence of the bacterium in the seeds are thought to be factors which caused the outbreak.

Source: Scortichini, M. (1997) Disease Note. Early infections of *Clavibacter michiganensis* subsp. *michiganensis* on tomato cultivated in unheated greenhouse in Central Italy.
Journal of Plant Pathology, 79(3), p 223.

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

98/066 *Tilletia controversa* is not present in Alberta (CA)

The Plant Protection authorities of Canada have recently informed the EPPO Secretariat that Alberta has been erroneously added to the list of Canadian provinces in which *Tilletia controversa* (EPPO A2 quarantine pest) occurs, as it appears in Quarantine Pests for Europe (2nd edition). Surveys conducted between 1975-1992 failed to detect this fungus (Gaudet & Puchalski, 1989). In addition, the environmental conditions which favour the disease do not occur in the winter wheat production areas of Alberta. The correct distribution of *T. controversa* in Canada only includes British Columbia and Ontario.

Source: **Animal and Plant Health Directorate, Plant Protection Division, Canada, 1998-04.**

Gaudet, D.A.; Puchalski, B.L. (1989) Races of common bunt (*Tilletia caries* and *T. foetida*) of wheat in western Canada.
Canadian Journal of Plant Pathology, 11, 415-418.

Additional key words: denied record **Computer codes:** TILLCO, CA

98/067 Citrus tristeza closterovirus is present in the United Arab Emirates

So far, the United Arab Emirates were considered free from citrus tristeza closterovirus (EPPO A2 quarantine pest). In 1995-1996, during a preliminary survey the disease was observed. It apparently has a limited extent. Some of the infected trees, scattered in different areas of the Emirates, had been imported from various countries. All infected trees have been destroyed. This is the first report of citrus tristeza closterovirus in the United Arab Emirates.
In addition, it is noted that lime witches' broom phytoplasma (EU Annex II/A1) is now widespread in the United Arab Emirates where it has a rapid and devastating effect on both species of sweet lime (*C. limetta* and *C. limettioides*) and citron (*C. medica*) and a slower crippling effect on acid lime (*C. aurantiifolia*). A high percentage of all these species has been destroyed by the disease. It is noted that no information is available on transmission of the disease (insect vector, graft or seed transmission?). The incidence of the disease increases with poor soils and high salinity of irrigation water.

Source: Al Shuraiki, R.K. (1997) Disease and pest outbreaks – United Arab Emirates. Citrus tristeza in the United Arab Emirates.
Arab and Near East Plant Protection Newsletter (FAO), no. 25, p 27.

Additional key words: new record **Computer codes:** CSLWBX, CSTXXX, AE

98/068 Detection of *Bactrocera philippinensis* in Australia

In Australia, in November 1997, an exotic fruit fly was detected in suburban Darwin, (Northern Australia). The species was initially thought to be *Bactrocera papayae*, but it was later identified as *Bactrocera philippinensis*. The distribution of *B. philippinensis* is essentially limited to Philippines where it has been recorded on *Artocarpus* (Moraceae), papaya (Caricaceae), *Syzygium* (Myrtaceae), mango (Anarcardiaceae) and wild fruits belonging to the family Sapotaceae. The insects were collected from methyl-eugenol traps which were part of the national fruit fly trapping program, the first specimen was caught on 19 November 1997. Eradication measures were applied. A quarantine zone of 50 km around the original detection was delimited. Restrictions on the movement of host fruits and vegetables from the quarantine zone were imposed. A programme of male annihilation using methyl eugenol- and malathion-soaked fibre blocks placed on one host tree in each suburban house yard was immediately started. A protein bait spray programme was also applied to host plants in the area where fruit flies had been trapped. In the quarantine area, 82 flies were trapped until 26 December 1997, with no further detection since that date.

Source: Alwood, A. (1997) New fruit fly incursion in Darwin, Northern Australia *Bactrocera philippinensis*.
Ag Alert, 15 December 1997, no.18, 2 pp.

Additional key words: new record **Computer codes:** AU, BACTPH

98/069 News from the Caribbean

The Plant Health Report (January – December 1996) has been prepared by IICA Office in Barbados and compiles replies to a questionnaire on quarantine pests received from several countries in the Caribbean (Antigua & Barbuda, Bahamas, Bermuda, British Virgin Islands, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, St Kitts & Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Trinidad & Tobago). The records which are new to the EPPO Secretariat are presented below.

- *Aleurocanthus woglumi* (EPPO A1 quarantine pest): British Virgin Islands, St Kitts and Nevis (reported as a new introduction).
- *Anastrepha suspensa* (EPPO A1 quarantine pest): British Virgin Islands.
- *Bemisia tabaci* (EPPO A2 quarantine pest): British Virgin Islands (first observed in 1993).
- Citrus tristeza closterovirus (EPPO A2 quarantine pest): British Virgin Islands.
- *Thrips palmi* (EPPO A1 quarantine pest): British Virgin Islands, Jamaica (reported as a new introduction).
- Tomato yellow leaf curl bigeminivirus (EPPO A2 quarantine pest): Dominica (symptoms first seen in 1996).
- *Toxoptera citricida* (EPPO A1 quarantine pest): British Virgin Islands.

Source: Anonymous (1996) CARAPHIN – Plant Health Report, January-December 1996, 65 pp. IICA, Barbados.

Additional key words: new records.

Computer codes: ALECWO, ANSTSU, BEMITA, CSTXXX, THRIPL, TMYLCX, TOXOCI, DM, JM, VG.

98/070 Detection methods for *Phytophthora fragariae*

1) Detection and identification by PCR
Red core of strawberry and raspberry root rot are respectively caused by *Phytophthora fragariae* var *fragariae* and by *P. fragariae* var *rubi* (both EPPO A2 quarantine pests). Infection can be difficult to detect, especially in summer when the fungus is largely inactive and is present principally as oospores. Other *Phytophthora* species (e.g. *P. cactorum*) may also affect plants but are not subjected to quarantine measures. Therefore, there is a need for highly sensitive and discriminatory tests to detect low levels of infection of *P. fragariae*. A PCR technique has been developed in the Netherlands and Scotland. Sequences of the internal transcribed spacer region of the ribosomal gene repeat (rDNA) were used to develop specific primers in a nested-PCR. With this technique, it was possible to detect specifically *P. fragariae* in infected but symptomless roots, and also to detect zoospores in contamined water samples. The method is highly sensitive, and is at least as sensitive as the bait plant test. Although this work was mainly done on *P. fragariae* var. *fragariae*, the PCR method can also be used for *P. fragariae* var. *rubi*.

2) Detection of *Phytophthora fragariae* var. *rubi* by ELISA
A commercial ELISA kit (ELISA multiwell Kit E developed by Agri-Diagnostics Ass., USA) for the detection of *Phytophthora* spp. was studied in order to: 1) evaluate the earliest time after zoospore inoculation at which this kit can detect a latent infection of *Phytophthora fragariae* var. *rubi* in raspberry plants, 2) find the detection limit of the kit (small amounts of infected raspberry root mass were mixed with healthy root mass in simulated infections). When root systems of raspberry plants were inoculated with zoospores of *Phytophthora fragariae* var. *rubi*, the pathogen could be detected in extracts already 4 days after inoculation. For simulated infections, where 0.25, 0.5, 1.0 and 1.5% infected tissues were mixed with healthy tissues (w/w), it was possible to detect the pathogen at 0.25% of simulated infection level. The authors felt that this ELISA test offers better possibilities for an early diagnosis of *Phytophthora* diseases of raspberry and therefore for a more effective control of these diseases, in preventing their spread on latently infected planting material.

Source: Bonants, P.; Hagenaar-de Weerdt, M.; van Gent-Pelzer, M.; Lacourt, I.; Cooke, D.; Duncan, J. (1997) Detection and identification of *Phytophthora fragariae* Hickman by the polymerase chain reaction.
European Journal of Plant Pathology, 103(4), 345-355.

Olsson, C.H.B; Heiberg, N. (1997) Sensitivity of the ELISA test to detect *Phytophthora fragariae* var. *rubi* in raspberry roots.
Journal of Phytopathology, 145(7), 285-288.

Additional key words: new detection methods **Computer codes:** PHYTFR, PHYTRU

98/071 Possible existence of a variant of *Diabrotica virgifera virgifera* attracted to soybean

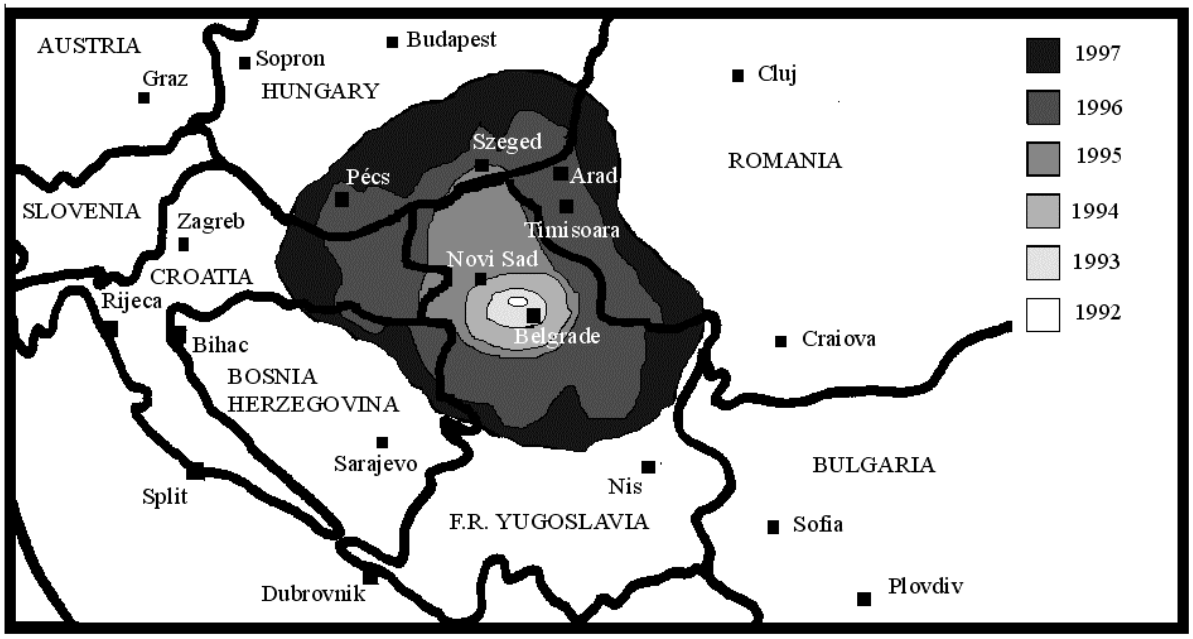
In USA, crop rotation is the main strategy to control *Diabrotica virgifera virgifera* (EPPO A2 quarantine pest). In Illinois and Indiana, rotation of maize with soybean is widely used. Economic damage to maize planted after soybean was rarely observed, and was only seen when populations of volunteer maize plants were abundant in soybean fields. However, since the late 1980s, in Illinois (east central part) and Indiana (north-western part), *D. virgifera virgifera* have been laying eggs in soybean fields regardless of the presence of volunteer maize plants, and economic damage to maize planted after soybean has become common. Laboratory studies were carried to compare the attractiveness of soybean, corn and associated crop environments to *D. virgifera virgifera* from north-western Indiana with beetles from other areas (Iowa and Nebraska). Results of laboratory studies (multiple choice and no-choice feeding assays) indicated that a variant of *D. virgifera virgifera* may be present in a portion of the population present in the north-western part of Indiana and that this variant preferred soybean environment to maize environment. If these results were to be verified in the field, this would have consequences on control strategies, as the reliability of crop rotation with soybean would be diminished in areas where this variant occurs.

Source: Sammons, A.E.; Edwards, C.R.; Bledsoe, L.W.; Boeve, P.J.; Stuart, J.J. (1997) Behavioral and feeding assays reveal a Western corn rootworm (Coleoptera: Chrysomelidae) variant that is attracted to soybean.
Environmental Entomology, 26(6), 1336-1342.

Additional key words: genetics**,** control methods **Computer codes:** DIABVI

98/072 Distribution map of *Diabrotica virgifera* in Central Europe

The situation of *Diabrotica virgifera* (EPPO A2 quarantine pest) in Central Europe was presented in detail in EPPO RS 98/001. The following map was prepared by the coordinators of the FAO/TCP project on western corn rootworm and was kindly provided to the EPPO Secretariat. It illustrates the areas where the pest has been trapped since its introduction into Yugoslavia in 1992.



Spread of *Diabrotica virgifera* in Europe from 1992-1997 (based on data from Barcic, Camprag, Festic, Ilovay, Maceljski, Princzinger, Vonica).

Source: **FAO/TCP project coordinators, 1998-03.**
EPPO Secretariat, 1998-03.

Additional key words: distribution map **Computer codes:** DIABVI

98/073 *Gonipterus scutellatus* and *G. gibberus* are two separate species

Gonipterus scutellatus and *G. gibberus* were treated as synonymous in the latest version of the EPPO data sheets. However, *G. scutellatus* and *G. gibberus* have recently been redescribed in Brazil and are now considered as two separate species (Rosado-Neto & Marques, 1996). Adults of *G. scutellatus* and *G. gibberus* are difficult to distinguish, but immature stages present distinct morphological characteristics which allow species identification. An identification key for these two species is given by Rosado-Neto & Marques (1996). Information on synonyms is also given. *Dacnirotatus platensis*, *Gonipterus platensis* and *Goniopterus marellii* are synonyms of *G. scutellatus*. *Dacnirotatus bruchi* is a synonym of *G. gibberus*.

G. scutellatus and *G. gibberus* are *Eucalyptus* pests and originate from Australia. Rosado-Neto (1993) explains that *G. scutellatus* and *G. gibberus* were introduced into South America, firstly in Argentina (in 1926), and then spread towards the north to other countries. They were successively found in Uruguay (1943), Brazil (Rio Grande do Sul in 1955, Santa Catarina in 1982, Paraná in 1982, and in 1993 *G. scutellatus* was reported in São Paulo). It can also be noted that *G. scutellatus* has been introduced into new countries in other regions of the world (in France and Italy and most recently into Spain, Portugal, USA (California) – see EPPO RS 96/213, 97/011, 97/0154). The following draft distribution lists can now be proposed.

Gonipterus gibberus

EPPO region: presumed absent.
South America: Argentina, Brazil (Paraná, Rio Grande do Sul, Santa Catarina), Uruguay.
Oceania: Australia (Queensland, New South Wales, South Australia, Tasmania, Victoria).

Gonipterus scutellatus

EPPO region: present locally in France and Italy. It was introduced into the Liguria region of Italy in 1975 and then into the adjoining Alpes Maritimes département of France in 1977. Recently introduced into Spain (observed for the first time in 1991 near Pontevedra in Galicia, it then spread to Asturias) and later into the nearby region in Portugal.
Africa: Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, St Helena, South Africa, Swaziland, Uganda, Zimbabwe (unconfirmed).
North America: USA (California).
South America: Argentina, Brazil (Paraná, Rio Grande do Sul, Santa Catarina, São Paulo), Uruguay.

Oceania: Australia (Queensland, New South Wales, South Australia, Tasmania, Victoria), New Zealand.

Source: Rosado-Neto, G.H.; Marques, M.I. (1996) [Characteristics of adults, genitalia and immature forms of *Gonipterus gibberus* Boisduval and *G. scutellatus* Gyllenhal (Coleoptera, Curculionidae)].
Revista Brasileira de Zoologia, 13(1), 77-90.

Rosado-Neto, G.H. (1993) [Gonipterinae of eucalyptus: first record of *Gonipterus scutellatus* in the State of São Paulo, Brazil and some notes on *G. gibberus* (Coleoptera, Curculionidae).]
Revista Brasileira de Entomologia, 37(3), 465-467.

Rosado-Neto, G.H.; de Feitas, S. (1982) Description of immature forms of the eucalyptus weevil *Gonipterus gibberus* Boisduval, 1835 (Coleoptera, Curculionidae).
Revista Brasileira de Biologia, 42(3), 467-471.

98/074 Some thoughts on *Ceratocystis virescens*

In North America, *Ceratocystis virescens* (EU Annex II/A1) causes sapstreak disease of sugar maple (*Acer saccharum*). This fungus has been considered by many authors as a synonym of *Ceratocystis coerulescens* which is widespread in Europe on conifers, as the teleomorphs cannot be morphologically differentiated. In addition to taxonomic problems, its pathogenicity, particularly to European maple, still needs to be clarified. From a quarantine point of view, these difficulties have led to different attitudes. EPPO has not considered that *C. virescens* was a quarantine pest, essentially on the grounds that it presented a negligible risk as a pathogen of *Acer saccharum*. The European Union has considered that it was synonymous with *C. coerulescens*, but that it could present a danger for European maples. But seen from the outside, it appears that quarantine measures are required against a ubiquitous and more or less harmless fungus, which is not satisfactory.
The authors also made the following points. More recent studies on isozyme variation and on morphological differences between the anamorphs tend to suggest that *C. coerulescens* and *C. virescens* could be two different species. Concerning host range, *C. virescens* occurs essentially on *A. saccharum*, although a few cases of infestation have been reported on *Liriodendron tulipifera*. *C. coerulescens* occurs on conifers. Recently, however a *Ceratocystis* species belonging to the *C. virescens*/*C. coerulescens* complex has been found in Europe on a broad-leaf tree species (*Quercus robur*). Experiments have shown that *C. virescens* could survive in the wood, and could still be isolated from air-dried boards 5 months after being cut. Its introduction on wood or wood products is therefore possible. They felt that quarantine

measures are then justified. The problem of pathogenicity of *C. virescens* to European maple cannot be appraised with the current state of knowledge.
The authors concluded that there is an urgent need to clarify taxonomy, pathogenicity and host spectrum, for a better evaluation of the phytosanitary risk presented by *C. virescens*.

Source: Zajonc, J.; Wulf, A. (1997) [European maple species endangered by sapstreak (*Ceratocystis virescens*)?]
Nachrichtenblatt des Deutschen Pflanzenschutzdienstes, 49(12), 297-300.

Additional key words: taxonomy, pathogenicity **Computer codes:** CERAVI

98/075 Studies on possible infestations by *Bursaphelenchus* species on wood imports

In the state of Brandenburg, Germany, since the 1990s, imports of wood, wood chips and bark from non-European Union countries and from other parts of Germany have been tested for possible infestations by pine wood nematode (*Bursaphelenchus xylophilus* – EPPO A1 quarantine pest) and other related species of nematodes. More than 1500 import consignments of wood and wood products from eastern Europe and the Asian part of Russia were sampled. The nematode *Bursaphelenchus mucronatus* was found only in 10 imports. In addition, *B. mucronatus* was found in one sample of *Pinus* round wood and one sample of *Pinus* wood chips from the eastern part of Germany. *B. xylophilus* has never been found.

Source: Schönfeld, U.; Bröther, H. (1998) [Studies on wood and bark of attack with pine wood nematodes (*Bursaphelenchus* spp.)]
Gesunde Pflanzen, 50(2), 33-35.

Additional key words: interceptions **Computer codes:** BURSXY

98/076 Eradication of *Radopholus similis* in Japan (details)

The major exotic pests which have recently invaded Japan are the following: *Globodera pallida* (in 1972), *Trialeurodes vaporariorum* (1974), *Lissorhoptrus oryzophilus* (rice water weevil in 1976), *Thrips palmi* (1978), *Liriomyza trifolii* (1990) and *Frankliniella occidentalis* (1990). The example of introduction into Japan and eradication of the burrowing nematode, *Radopholus similis* (EPPO A2 quarantine pest) is described. The occurrence of *R. similis* in Japan was first confirmed on ornamental plants growing in Hachijo-jima Island, in October 1966. It was suspected that the source of introduction was Anthurium seedlings which were imported in large quantities from Hawaii (US). Detection surveys were carried out on approximately 10,000 plants (ornamentals, fruit trees and vegetables) cultivated on Hachijo-jima Island, and infestations were found in 47 plants. Eradication measures were applied: prohibition of movement of plants from the quarantined area, destruction of host plants and disinfestation of the facilities where infestation was found. During the following years, the nematode could no longer be found, and the eradication was considered successful by December 1969.

Source: Saeki, I. (1997) Invasion of exotic insect pests into Japan and their control. **Agrochemicals Japan, 71(8), 8-11.**

Additional key words: eradication **Computer codes:** RADOSI, JP

98/077 EPPO report on selected intercepted consignments

The EPPO Secretariat has gathered the intercepted consignment reports for 1998 received since January from the following countries: Belgium, Czechia, Finland, France, Germany, Italy, Ireland, Israel, Malta, Netherlands, Norway, Portugal, Slovenia, 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 interceptions made because of the presence of pests. Other interceptions 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 interception reports.

Note: In the 1997 interceptions, a second consignment (the first appeared in RS 97/109 - 97/182) of pelargonium cuttings, *Pelargonium fragrans* cv. Concolor lace, from Israel was intercepted by United Kingdom because of tomato ringspot nepovirus. This interception was

not included in the last report for 1997 (EPPO RS 98/054). The EPPO Secretariat checked the situation with both parties. This interception was made on the basis of laboratory tests (samples tested twice by ELISA) in United Kingdom. However, as for the previous interception, the Israeli Plant Protection Service considers that this virus does not occur in Israel. The nursery from where the cuttings were sent was inspected and no symptoms were found. In addition, 90 samples were randomly collected and tested by ELISA (using another antiserum), and all results were negative. A few samples were checked by electron microscopy and no viruses were seen. Tests on indicator plants are currently being done. It is also planned to test plants with the same antisera which was used in UK. Finally, the Plant Protection Service of Israel noted that all mother plants of *Pelargonium fragrans* cv. Concolor lace derive from Germany.

Pest	Consignment	Type of commodity	Country of origin	Country of destination	nb
Aleurotulus nephrolepidis	*Cyathea dregei*	Plants for planting	South Africa	United Kingdom	1
Aonidia lauri	*Laurus nobilis*	Vegetables	France	United Kingdom	1
Aspidiotus destructor	*Eucalyptus*	Cuttings	Congo	United Kingdom	1
Bemisia tabaci	*Alyogyne*	Cuttings	Israel	United Kingdom	1
	Amaranthus viridis	Vegetables	Cameroon	United Kingdom	1
	Annona squamosa	Fruits	Ghana	United Kingdom	1
	Aster	Cut flowers	Israel	France	2
	Dendranthema	Cut flowers	Spain	Ireland	1
	Euphorbia pulcherrima	Pot plants	Spain	Portugal	2
	Eustoma grandiflorum	Cut flowers	Israel	United Kingdom	1
	Ficus elastica	Plants for planting	Belgium	United Kingdom	1
	Hypericum	Cut flowers	Israel	United Kingdom	2
	Lantana camara	Cuttings	Israel	United Kingdom	4
	Laurus nobilis	Plants for planting	Italy	United Kingdom	1
	Manihot esculenta	Vegetables	Cameroon	United Kingdom	1
	Ocimum basilicum	Vegetables	Thailand	United Kingdom	1
	Rosa	Cut flowers	Israel	France	2
	Solidago	Cut flowers	Israel	France	1
	Solidago	Cut flowers	Israel	Ireland	1
	Solidago	Cut flowers	Israel	United Kingdom	1
	Solidago	Cut flowers	Netherlands	Ireland	1
	Solidago	Cut flowers	Netherlands	United Kingdom	2
	Syngonium podophyllum	Plants for planting	Netherlands	United Kingdom	1
	Torenia	Cuttings	Israel	United Kingdom	1
	Trachelium	Cut flowers	Israel	United Kingdom	4
	Trachelium	Plants for planting	Israel	United Kingdom	1
	Trachelium	Cut flowers	Israel	United Kingdom	1
	Trachelium	Cut flowers	Netherlands	United Kingdom	2
	Viola	Plants for planting	Austria	Portugal	1
Bursaphelenchus xylophilus	*Pinus*	Wood chips	USA	Finland	1
Chrysodeixis chalcites	*Impatiens*	Cuttings	Israel	United Kingdom	1
Clavibacter michiganensis **subsp. *sepedonicus***	*Solanum tuberosum*	Seed potatoes	Canada	Italy	4
Diachrysia orichalcea	*Petroselinum crispum*	Vegetables	Malta	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	Country of destination	nb
Diaspis boiduvalii	*Ananas comosus*	Cuttings	Thailand	United Kingdom	1
Diplodia zeae	*Zea mays*	Seeds	USA	Israel	1
Ditylenchus destructor	*Canna*	Bulbs and tubers	Netherlands	Israel	1
	Tigridia	Bulbs and tubers	Netherlands	Israel	1
Ditylenchus dipsaci	2 machines	Machinery	Japan	United Kingdom	1
***Frankliniella* sp.**	Orchidaceae	Cut flowers	Singapore	France	1
***Globodera* sp.**	*Primula*	Plants for planting	Poland	Germany	1
Grapevine fanleaf nepovirus	*Vitis vinifera*	Plants for planting	France	Switzerland	1
Grapevine fanleaf, Grapevine leaf roll type 3, Grapevine A, Grapevine fleck viruses	*Vitis vinifera*	Plants for planting	Italy	Malta	1
Helicoverpa armigera	*Phaseolus vulgaris*	Vegetables	Kenya	Ireland	1
Insects (armored scales)	*Dracaena*	Cuttings	Netherlands	Israel	1
Leptinotarsa decemlineata	*Lactuca sativa*	Vegetables	France	United Kingdom	2
	Lactuca sativa	Vegetables	Italy	United Kingdom	2
	Petroselinum crispum	Vegetables	Italy	United Kingdom	3
	Petroselinum crispum	Vegetables	Spain	United Kingdom	2
Leveillula taurica	*Gazania hybrida*	Cuttings	Israel	United Kingdom	1
Liriomyza huidobrensis	*Anemone*	Cut flowers	Italy	United Kingdom	1
	Apium graveolens, Coriandrum, Petroselinum, Eruca sativa, Cichorium endivia	Vegetables	Cyprus	United Kingdom	2
	Carthamus	Cut flowers	Kenya*	United Kingdom	1
	Coriandrum sativum	Vegetables	Cyprus	United Kingdom	5
	Dendranthema	Cut flowers	Netherlands	Ireland	3
	Eustoma grandiflorum	Cut flowers	Israel	United Kingdom	1
	Eustoma grandiflorum	Cut flowers	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Israel	United Kingdom	1
	Gypsophila	Cut flowers	Netherlands	Czech Republic	2
	Gypsophila	Cut flowers	Netherlands	Ireland	1
	Moluccella	Cut flowers	Kenya*	United Kingdom	1
	Phlox	Cut flowers	Netherlands	United Kingdom	1
	Ranunculus	Cut flowers	Netherlands	United Kingdom	1
	Solidago	Cut flowers	Israel	Ireland	1
	Trigonella foenum-graecum	Vegetables	Cyprus	United Kingdom	2
Liriomyza sativae	*Ocimum basilicum*	Vegetables	Thailand	France	7

Pest	Consignment	Type of commodity	Country of origin	Country of destination	nb
***Liriomyza* sp.**	*Aster*	Cut flowers	Netherlands	United Kingdom	1
	Coriandrum sativum	Vegetables	Cyprus	United Kingdom	1
	Gypsophila	Cut flowers	Israel	Germany	5
Liriomyza trifolii	*Brassica*	Vegetables	Egypt	United Kingdom	1
	Bupleurum	Cut flowers	Netherlands	United Kingdom	1
	Eustoma grandiflorum	Cut flowers	Israel	United Kingdom	1
	Gypsophila	Cut flowers	Israel	Ireland	1
	Ocimum basilicum	Vegetables	Israel	United Kingdom	1
	Verbena	Plants for planting	USA	United Kingdom	1
Maruca testulalis	*Dolichos lablab*	Vegetables	Bengladesh	United Kingdom	1
Meloidogyne hapla	*Dahlia*	Bulbs and tubers	Netherlands	Israel	2
	Tigridia	Bulbs and tubers	Netherlands	Israel	1
***Meloidogyne* sp.**	*Rosa*	Plants for planting	Denmark	Norway	2
	Rosa	Plants for planting	Netherlands	Norway	1
	Unspecified plants	Plants for planting	Netherlands	Norway	1
Paraphytomyza dianthicola	*Dianthus*	Cuttings	Italy	Israel	1
Pratylenchus penetrans	*Lilium*	Pot plants	Netherlands	Israel	1
***Pratylenchus* sp.**	*Sinningia speciosa*	Bulbs and tubers	Netherlands	Israel	1
	Rosa	Plants for planting	France	Malta	1
Pseudomonas syringae* pv. *pisi	*Pisum sativum*	Seeds	USA	Israel	1
Puccinia horiana	*Dendranthema*	Cuttings	Kenya*	Finland	9
	Dendranthema	Cuttings	Kenya*	United Kingdom	4
	Dendranthema	Cut flowers	Netherlands	Norway	2
Radopholus similis	*Marantha*	Plants for planting	Brazil	Netherlands	1
Ralstonia solanacearum	*Solanum tuberosum*	Ware potatoes	Egypt	United Kingdom	14
***Sitophilus* sp.**	*Triticum aestivum*	Stored products	Hungary	Slovenia	1
***Sitophilus* sp., *Cryptolestes* sp.**	*Triticale*	Stored products	Hungary	Slovenia	2
Spodoptera littoralis	*Ocimum basilicum*	Vegetables	Spain	United Kingdom	1
Thripidae	*Luffa acutangula*	Vegetables	Dominica	United Kingdom	1
Thrips palmi	*Amaranthus viridis*	Cut flowers	Mauritius	France	1
	Dendrobium	Cut flowers	Thailand	Germany	3
	Dendrobium	Cut flowers	Thailand	Italy	3
	Dendrobium	Cut flowers	Thailand	United Kingdom	7
	Momordica charantia	Vegetables	Dominica	United Kingdom	1
	Momordica charantia	Vegetables	Thailand	France	3
	Orchidaceae	Cut flowers	Thailand	Finland	3
	Orchidaceae	Cut flowers	Thailand	France	1
	Solanum melongena	Vegetables	Thailand	France	1

Pest	Consignment	Type of commodity	Country of origin	Country of destination	nb
***Thrips* sp.**	*Dendrobium*	Cut flowers	Thailand	Italy	4
Tomato spotted wilt tospovirus	*Lobelia*	Cuttings	Israel	Finland	1
***Tylenchorhynchus* sp.**	*Ficus*	Pot plants	Netherlands	United Kingdom	1

- **Fruit flies**

Pest	Consignment	Country of origin	Country of destination	nb
Tephritidae	*Mangifera indica*	South Africa	United Kingdom	1

- **Bonsais**

12 consignments of bonsai plants (*Acer buergerianum*, *Acer palmatum*, *Carpinus careana*, *Juniperus chinensis*, *Juniperus rigida*, *Juniperus* sp., *Pinus pentaphylla*, *Serissa*, *Zelkova serrata*) from China (3), Japan (8) and Republic of Korea (1) were intercepted by Belgium (9) and United Kingdom (3) because of the presence of the following nematodes and aphids: *Aphelenchoides* (*besseyi* strongly suspected), Criconematidae, *Helicotylenchus* sp., *Paratrichodorus* sp., *Pratylenchus penetrans*, *Pratylenchus* sp., *Psylenchus* sp., Tylenchidae, *Tylenchus* sp. and *Tinocallis takachihoensis*.

Source: **EPPO Secretariat, 1998-04.**
Plant Protection Service of Israel, 1998-04.
Plant Protection Service of United Kingdom, 1998-04.

98/078 *Phytophthora cinnamomi* reported on ivy (*Hedera helix*)

In 1989, *Phytophthora cinnamomi* (EU Annex II/B) was isolated from ivy (*Hedera helix*) pot plants in two Danish glasshouse nurseries. Symptoms were characterized by brown, rotten roots and stems, and brown areas developing from the base of the leaves. The authors pointed out that this is the first report of *P. cinnamomi* on ivy in Europe.

Source: Thinggaard, K;; Toppe, B. (1997) First report of *Phytophthora cinnamomi* root rot, stem and leaf blight on ivy.
Plant Disease, 81(8), p 960.

Additional key words: new host plant **Computer codes:** PHYTCN

98/079 PQR – Version 3.6 is now available

A new version of PQR, the EPPO data base on plant quarantine, has just been released. It contains updated information on geographical distribution and host plants of quarantine pests listed by EPPO and the European Union. It also provides information on pests of quarantine interest to other Regional Plant Protection Organizations (RPPOs), addresses of Plant Protection Services and RPPOs, membership of RPPOs, etc.

PQR version 3.6 is available on diskette from the EPPO Headquarters, 1 rue Le Nôtre, 75016 Paris, France. The annual registration fee for PQR is 250 FRF.

Source: EPPO Secretariat, 1998-04.