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Reporting

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97/145 First report of *Erwinia amylovora* in Australia

The possible presence of fireblight (*Erwinia amylovora* – EPPO A2 quarantine pest) in Australia was first raised in early May 1997, by a scientist from New Zealand visiting the Royal Botanical gardens in Melbourne. Suspect ornamental plants were also observed in Adelaide Botanical Garden. After several tests, it was confirmed that *E. amylovora* was present in a limited number of ornamental host plants (*Cotoneaster* spp.) in Melbourne and Adelaide Botanical Gardens. Surveys carried out throughout Australia have failed to detect fireblight in commercial orchards, nurseries and urban areas. Quarantine measures have immediately been applied and a national survey programme for spring 1997 is planned.

Source: Media Releases of 1997-05-14, 1997-05-19, 1997-06-19. John Anderson. Minister for Primary Industries and Energy.
Web site of the Department of Primary Industries and Energy on INTERNET
http://www.dpie.gov.au

ProMED-mail of 1997-07-24 on fireblight in Australia
Promed@usa.healthnet.org

97/146 First report of *Xyllela fastidiosa* on grapevine in Baja California (MX)

In summer 1995, characteristic symptoms of Pierce's disease (caused by *Xyllela fastidiosa* - EPPO A1 quarantine pest) were observed in grapevines grown in the Guadalupe Valley, Baja California, in Mexico. Symptoms were characterized by leaf scorching, attachment of petioles to the cane, irregular maturing of cane bark, wilting and drying of fruit clusters. DAS-ELISA tests were carried out in eleven grape fields and positive results were obtained from four fields. Affected varieties were the following: Palomino, French Colombard, Chenin Blanc and Chardonnay. The author pointed out that this is the first report of Pierce's disease in Baja California, and this also confirms the presence of the bacterium in Mexico.

Source: Guevara, J. (1997) Occurrence of Pierce's disease (*Xyllela fastidiosa*) in grape of the Guadalupe Valley, Baja California, Mexico.
Abstract of a paper to be presented at the APS Annual Meeting, Rochester (US), 1997-08-09/13.
Phytopathology, 87 (6), Supplement, S36.

Additional key words: detailed record **Computer codes:** XYLEFA, MX

97/147 First report of tomato black ring nepovirus in Greece

During a survey carried out in 1993-1995, sugar beet plants in the some areas of north-western Greece showed yellow ringspots on the leaves. It was showed that these plants were infected by tomato black ring nepovirus (EU Annex II/A2). The authors noted that this is the first report of tomato black ring nepovirus in Greece; so far it seems likely that it will not cause serious problems to beet growers.

Source: Avgelis, A.; Katis, N. (1997) Tomato black ring nepovirus in sugar beet crops in Greece.
Phytopathologia mediterranea, 36 (1), 39-41.

Additional key words: new record **Computer codes:** TMBRXX, GR

97/148 First report of *Mycosphaerella pini* in Hungary

Regular surveys are being carried out in Hungary in black pine (*Pinus nigra*) stands, mainly to study the spread and biology of *Sphaeropsis sapinea* which can destroy young shoots and needles. However, unusual symptoms were observed and laboratory studies showed that they were caused by *Mycosphaerella pini* (EU Annex II/A2) and by *Sclerophoma pithyophila*. This is the first time that these two pathogens are observed in Hungarian black pine stands.

Source: Koltay, A. (1997) [New pathogens in Hungarian black pine stands]
Növényvédelem, 33, (7), 339-341.

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

97/149 Fungal diseases of forest trees in the coastal region of Croatia

Surveys have been carried out for many years in the coastal region of Croatia (Istrian Peninsula, Primorje and Dalmatia) on fungal diseases of forest trees. *Mycosphaerella dearnessii* (EPPO A2 quarantine pest) was reported for the first time in 1979 in Crvena Luka on *Pinus halepensis* (under the name *Scirrhia acicola*). At present, it is found in a wide region of Dalmatia on *P. halepensis*, but is not as aggressive as described in the USA. Serious needle cast has only been observed in *P. halepensis* plantations with dense canopy, dense vegetation of shrubs under the trees and in conditions of high air humidity. *Mycosphaerella pini* (EU Annex II/A2) is also present in Croatia (the EPPO Secretariat had previously no information on this fungus in Croatia) mainly on *P. nigra*, but also on other pine species. The disease is more intense in humid sites with excessively dense canopies. *Cryphonectria parasitica* (EPPO A2 quarantine pest) has been present in Croatia since the 1950s. It can be found in Istria, on the north-eastern side of the Cres island and to a small extent on the eastern part of Krk island. However, the intensity of the disease is less on the coastal region than in the continental part of Croatia.

Source: Novak-Agbaba, S.; Halambek, M. (1997) The most important plant diseases on forest trees in the coastal region of Croatia.
Proceedings of the 10th Congress of the Mediterranean Phytopathological Union, 1997-06-01/05, Montpellier (FR), 67-73

Additional key words: detailed record **Computer codes:** ENDOPA, SCIRAC, SCIRPI, HR

97/150 Citrus tatter leaf capillovirus should be considered as an isolate of apple stem grooving capillovirus

Citrus tatter leaf capillovirus (EPPO A1 quarantine pest) affects citrus but a similar virus has also been isolated from stunted and chlorotic lilies. In previous studies, it has been found that the virus from lily cannot be distinguished from apple stem grooving capillovirus (isolated from apple), on the basis of biological or serological properties or genome organization. Studies were carried out in Japan on the relationships between apple stem grooving capillovirus (ASGV) isolated from various rosaceous fruit trees (apple, European and Japanese pears) and citrus tatter leaf capillovirus (CTLV) from citrus trees, by comparing their genomes. The results provided further evidence that CTLV from citrus cannot be distinguished from ASGV, based on the nucleotide sequences of the genomes. The authors noted that this supports the proposal that CTLV should be regarded as an isolate of ASGV. ASGV is not an EPPO A1 quarantine pest, and occurs in many European countries.

Source: Magome, H.; Yoshikawa, N.; Takahashi, T.; Ito, T.; Miyakawa, T. (1997) Molecular variability of the genomes of capilloviruses from apple, Japanese pear, European pear, and citrus trees.
Phytopathology, 87(4), 389-403.

Additional key words: genetics **Computer codes:** CSTLXX

97/151 Studies on *Colletotrichum acutatum* in Israel

Strawberry anthracnose caused by *Colletotrichum acutatum* (EU Annex II/A2) was first observed in Israel in 1995, and reached epidemic levels in 1995-96. In a majority of cases typical symptoms of crown rot, flower blight, fruit rot were observed, except in at least four production fields of the same region where plants showed stunting and chlorosis. When uprooted, most of them presented decayed roots of a dark brown colour. Studies were carried out to characterize 147 isolates from plants showing typical and atypical symptoms by using isolation methods on semi-selective medium, pathogenicity tests, vegetative compatibility tests and PCR. *C. acutatum* was isolated from both type of plants. Both foliar and root-infecting isolates were equally pathogenic to strawberry. Results of the vegetative compatibility tests showed that most isolates (113 out of 115 tested isolates) belonged to a single vegetative compatibility group. Finally, when compared to US isolates of *C. acutatum* by using PCR techniques, similarities were observed. The authors felt that this suggests that the Israeli isolates belong to an asexually reproducing clonal population which may originate from USA. They also noted that under certain conditions (e.g. climate, high inoculum pressure etc.) the pathogen can also cause severe stunting and death of strawberry plants by infecting the root system.

Source: Freeman; S.; Katan, T. (1997) Identification of *Colletotrichum* species responsible for anthracnose and root necrosis of strawberry in Israel. **Phytopathology, 87(5), 516-521.**

Additional key words: epidemiology **Computer codes:** COLLAC, IL

97/152 New information concerning *Fusarium oxysporum* f.sp. *albedinis*

Several papers on *Fusarium oxysporum* f.sp. *albedinis* (EPPO A2 quarantine pest) were presented at the 10th Congress of the Mediterranean Phytopathological Union, some new information is presented below.

1) The vascular wilt of *Phoenix canariensis* is caused by a distinct form, *Fusarium oxysporum* f. sp. *canariensis*. It was first observed in France (1970), in Italy (1974), Japan (1977), California (US, 1976), Australia (1980), Morocco (1987), Canary islands (ES, 1987), and recently in Florida (US). Symptoms resemble those found on *Phoenix dactylifera* infected by *Fusarium oxysporum* f.sp. *albedinis*, and it was once suggested that the disease on *P. canariensis* was caused by *F. oxysporum* f. sp. *albedinis* or that *F. oxysporum* f. sp. *canariensis* was closely related to and evolved from *F. oxysporum* f. sp. *albedinis*. Genetic analysis (RFLP) carried out on a collection of several isolates of the two pathogens showed that they are distinct entities and that *F. oxysporum* f.sp. *canariensis* does not derive from *F. oxysporum* f.sp. *albedinis* (Fernandez *et al*., 1997).

2) A PCR method to identify *F. oxysporum* f.sp. *albedinis* has been developed by a collaboration between Morocco and France. Two pairs of primers have been selected and give satisfactory results when used together to detect all isolates of *F. oxysporum* f.sp. *albedinis* (Tantaoui *et al*.; 1997).

Source: Fernandez, D.; Plyler, T.R.; Kistler, H.C. (1997) The Phoenix spp. pathogens *Fusarium oxysporum* f.sp. *albedinis* and *F. oxysporum* f.sp. *canariensis* are distinct genetic entities as evidenced by molecular markers. **Proceedings of the 10th Congress of the Mediterranean Phytopathological Union, 1997-06-01/05, Montpellier (FR), 195-197.**

Tantaoui, A.; Ouiten, M.; Geiger, J.P.; Fernandez, D. (1997) Use of a PCR-based assay for specific identification of *Fusarium oxysporum* f.sp. *albedinis* causing Bayoud disease of date palm in Morocco. **Proceedings of the 10th Congress of the Mediterranean Phytopathological Union, 1997-06-01/05, Montpellier (FR), 319-322.**

Additional key words: new detection method **Computer codes:** FUSAAL

97/153 New virus associated with blackcurrant reversion disease

Blackcurrant reversion disease is a virus-like disease, transmitted by the eriophyid gall mite *Cecidophyopsis ribis*. The disease is present in all countries where blackcurrant (*Ribes nigrum*) is grown commercially (except the Americas) and presents at least two forms according to symptoms, the common form and a more severe form. Blackcurrant reversion disease is not a quarantine pest for EPPO, but it has to be addressed in certification schemes for the production of healthy planting material of *Ribes*. The causal agent of this disease was unknown. But recent studies carried out in Finland and Scotland have shown that a new virus associated with reverted blackcurrant plants, probably a nepovirus, might be the causal agent. This virus was mechanically transmitted with difficulty from a blackcurrant plant affected by the severe form of the disease to *Chenopodium quinoa* and then to other herbaceous test plants. The virus was purified, partially characterized, and a PCR test was developed. This virus was detected in blackcurrant plants showing symptoms of the disease (both the common and severe ones). It was also found in vector gall mites from reverted plants and in plants where such vector mites had fed. But it was not detected on healthy blackcurrants or plants affected by other diseases. Although, Koch's postulates could not be fully verified, the virus is tentatively called blackcurrant reversion associated virus.

Source: Lemmetty, A.; Latvala, S.; Jones, A.T.; Susi, P.; McGavin, W.J.; Lehto, K. (1997) Purification and properties of a new virus from black currant, its affinities with nepoviruses and its close association with black currant reversion disease.
Phytopathology, 87(4),404-413.

Additional key words: etiology

97/154 Situation of *Gonipterus scutellatus* in Portugal

The Plant Protection Service of Portugal has recently confirmed that *Gonipterus scutellatus* (EPPO A2 quarantine pest) was found during a survey in the north of Portugal (see EPPO RS 96/213, 97/012). It is thought that the insect was introduced from Galicia (ES) where the pest is present, by natural adult flight. As there are no natural barriers and as the forest is continuous between the two regions, it is felt that nothing can prevent these migrations. Eradication of *G. scutellatus* is not considered feasible. A biological control programme against *G. scutellatus* is being implemented using the parasitoid *Anaphes nitens*.

Source: **Plant Protection Service of Portugal, 1997-08**

Additional key words: detailed record **Computer codes:** GONPSC, PT

97/155 *Bemisia tabaci* biotype B is present in Portugal

The Plant Protection Service of Portugal has informed the EPPO Secretariat that during the study carried out on populations of *Bemisia tabaci* present in Algarve (EPPO RS 96/112), the B biotype (also known as *B. argentifolii*) was identified.

Source: **Plant Protection Service of Portugal, 1997-08**

Additional key words: detailed record **Computer codes:** BEMITA, PT

97/156 Larvae of *Diabrotica virgifera* observed in Hungary

The Plant Protection Service of Hungary has recently informed the EPPO Secretariat that larvae of *Diabrotica virgifera* (EPPO A2 quarantine pest) have been found for the first time in Hungary. So far, only adults had been trapped. These larvae were found in Szeged and Csanádpalota (45 km from Szeged, near the Romanian border). No economical damage was observed on maize crops, but the number of adults trapped has increased. The monitoring programme implemented in Hungary will continue.

Source: **Plant Protection Service of Hungary, 1997-08.**

Additional key words: detailed record **Computer codes:** DIABVI, HU

97/157 *Ceratitis capitata* trapped in Florida (US)

One male *Ceratitis capitata* (EPPO A2 quarantine pest) was caught in a Jackson trimedlure trap in Tampa, county of Hillsborough, Florida (US), on 1997-05-28. The next day, another male fly was trapped in Brandon, 11 km east of the previous detection site. Six more adult flies were trapped in the same area. By 1997-06-02, a total of 47 flies had been caught in the county of Hillsborough (Tampa, Brandon and Mango areas). More recently, *C. capitata* has been detected in Lakeland, one of the major citrus-growing areas. Until now, 730 flies have been detected in 5 Florida counties: 661 in Hillsborough, 10 in Manatee, 4 in Orange, 53 in Polk and 2 in Sarasota. It is stressed that this is the first and only outbreak of *C. capitata* in Florida since 1990. Eradication measures have immediately been applied, including restrictions on the movement of host plants, chemical and biological (sterile insect technique) treatments.

Source: Pollard, G.V. (1997) Mediterranean fruit fly (Medfly) in Florida, USA. **CPPC Circular Letter, no. 1/97, 1st June 1997. FAO Sub Regional Office for the Caribbean, Barbados**.

Web site of APHIS on INTERNET - Florida medfly update, 1997-08-11 http://www.aphis.usda.gov

Additional key words: detailed record **Computer codes:** CERTCA, USA

97/158 Details on *Rhagoletis pomonella* in Mexico

In Mexico, *Rhagoletis pomonella* (EPPO A1 quarantine pest) is only present in the States of Mexico, Puebla, Guerrero and Distrito Federal. *Crataegus mexicana* is the preferred host, although attacks on apples have been reported. It is planned to conduct surveys in commercial apple orchards (60,000 ha) in Chihuahua, Durango, Coahuila and Nuevo Léon by using specific traps (yellow sticky traps with ammonium acetate and food attractant) to verify the absence of *R. pomonella* in these apple-producing regions, so that they can then be considered as pest-free areas.

Source: Santiago Martínez, G. (1996) Establecimiento del trampeo para *Rhagoletis pomonella* en las regiones productoras de manzana del norte de Mexico. **Boletín Fitosanitario, 46, p 7.**

Additional key words: detailed record **Computer codes:** RHAGPO, MX

97/159 Okra (*Abelmoschus esculentus*) can be a host plant for *Bactrocera dorsalis* and *B. cucurbitae*

In order to clarify the host status of okra (*Abelmoschus esculentus*) for *Bactrocera dorsalis* and *B. cucurbitae* (both EPPO A1 quarantine pests), laboratory studies have been carried out in Japan. In cage experiments, okra fruits, either intact or punctured with a steel pin, were exposed to females of *B. dorsalis* and *B. cucurbitae* reared in the laboratory. Adults of *B. dorsalis* emerged from both punctured and intact fruits, whereas *B. cucurbitae* only emerged from punctured fruits. By trying to compare their results with other studies done on other host fruits, the authors felt that the number of adult *B. dorsalis* emerging from okra is smaller than from mango (*Mangifera indica*), and much smaller for *B. cucurbitae* from okra than from bitter gourd (*Momordica charantia*). Survival rates of both fruit flies appear smaller on okra than on the major host fruits. Development periods of both species are equivalent to those observed respectively for *B. dorsalis* and *B. cucurbitae* on mango and bitter gourd. The authors concluded that okra can be a host plant for these fruit flies, although it may not be as favourable to development as their major host fruits.

Source: Kumagai, M.; Tsuchiya; T.; Katsumata, H. (1996) Larval development of *Bactrocera dorsalis* (Hendel) and *B. cucurbitae* (Coquillett) (Diptera: Tephritidae) on Okra.
Research Bulletin of the Plant Protection Service Japan, no. 32, 95-98.

Additional key words: host plant **Computer codes:** DACUCU, DACUDO

97/160 *Grapholita molesta* is present in South Africa

The presence of *Grapholita molesta* (EPPO A2 quarantine pest) in South Africa was reported in EPPO RS 509/10 (1991) but this was not confirmed by the South African Plant Protection Service. A recent paper from Barnes & Blomefield (1997) confirms its occurrence, and explains that *G. molesta* was indeed accidentally introduced into South Africa probably in 1987 on peach budwood illegally brought into the country. The pest was first detected in 1990 and spread rapidly throughout all stone fruit-growing areas. Up to six generations per year have been observed in certain regions, and crop losses can reach 60 % in peach orchards. Programmes of integrated management, combining the use of mating disruption and timely application of insecticides are being studied.

Source: Barnes, B.N.; Blomefield, T.L. (1997) Goading growers towards mating disruption: the South African experience with *Grapholita molesta* and *Cydia pomonella*.
IOBC wprs Bulletin, 20(1), 45-56.

Additional key words: confirmed record **Computer codes:** LASPMO, ZA

97/161 *Liriomyza trifolii* is present in Sudan

In Sudan, studies were carried out on the impact of sowing date of untreated faba bean (*Vicia faba*) on the populations of *Liriomyza trifolii* (EPPO A2 quarantine pest). The EPPO Secretariat had previously no data on the presence of *Liriomyza trifolii* in Sudan.

Source: Tag Elsir Elamin Abdalla (1995) Optimizing sowing date of faba bean for grain yield and to counter leaf miner *Liriomyza trifolii* (Berg) in New Halfa, Sudan.
FABIS Newsletter, ICARDA, no. 36/37, 19-20.

Additional key words: new record **Computer codes:** LIRITR, SD

97/162 Further details on *Thrips palmi* in Cuba

As reported in EPPO RS 97/114, *Thrips palmi* (EPPO A1 quarantine pest) was found for the first time in Cuba in March 1997. The pest is mainly present in the western part of Cuba in the provinces of Pinar del Rio, Habana, Matanzas, Cienfuegos and Isla de la Juventud. The most affected province is Habana with approximately 6,000 ha of crops attacked. At present, it is estimated that 9,000 ha of fruit and vegetable crops are infested by *T. palmi*, including: beans, beet, cabbage, cassava, cucumber, grape, melon, pepper, potatoes, pumpkin, soybean, sweet potato and tomato. The main affected crops are beans, potato, cucumber and water melon.

Source: Pollard, G.V. (1997) *Thrips palmi* in Cuba.
CPPC Circular Letter, no. 1/97, 1st June 1997. FAO Sub Regional Office for the Caribbean, Barbados.

Additional key words: detailed record **Computer codes:** THRIPL, CU

97/163 Irradiation as a quarantine treatment against *Thrips palmi*

Studies have been carried out in Japan on the use of irradiation against *Thrips palmi* (EPPO A1 quarantine pest) and *T. tabaci*, as alternative treatments are needed to replace methyl bromide fumigation. Eggs, second instar larvae and adults of *T. palmi* and *T. tabaci* were exposed to irradiation at doses of 0, 100, 200 and 400 Gy. For treated eggs of both species, it was found that younger eggs were more susceptible to the treatment. Some survivors could hatch and give larvae but could not reach pupal stage. For *T. palmi*, at a dose of 400 Gy, one larva was obtained (out of 386 treated eggs) but could not give a pupa. Concerning the treatment of second instar larvae, results showed that adult emergence of *T. tabaci* was inhibited at 200 Gy, while 1 male and 1 female of *T. palmi* could survive at 400 Gy (out of 126 treated larvae). But none of these 2 adults was able to produce descendants. When adults were treated, it was found that both species were sterilized at 400 Gy, but descendants were obtained at doses of 200 Gy and lower. The adult stage is the most tolerant to irradiation. The authors concluded that all stages of *T. palmi* and *T. tabaci* are sterilized or killed at 400 Gy. As previous studies have shown that no severe injuries were seen on many cut flowers irradiated at 400 Gy, it is felt that irradiation could be an effective quarantine treatment against *T. palmi* on cut flowers.

Source: Dohino, T.; Tanabe, K.; Masaki, S.; Hayashi, T. (1996) Effects of electron beam irradiation on *Thrips palmi* Karny and *Thrips tabaci* Lindeman (Thysanoptera: Thripidae).
Research Bulletin of the Plant Protection Service Japan, no. 32, 23-29.

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

97/164 Further spread of *Maconellicoccus hirsutus* in the Caribbean

Since EPPO RS 95/235, 96/028 and 96/207, further introductions of *Maconellicoccus hirsutus*, the pink hibiscus mealybug, have been reported from the Caribbean in the following islands and countries: British Virgin Islands (May 1997), Guyana (April 1997), Netherlands Antilles (Curaçao in June 1997, Sint Eustatius in May 1997), United States Virgin Islands (Saint Thomas in May 1997), St Vincent and the Grenadines (May 1997). Unconfirmed reports have been made from Anguilla. Programmes of biological control are being implemented in this region to prevent any further spread.

The distribution of this pest in the Caribbean region, is now the following:
Caribbean: Anguilla (unconfirmed), British Virgin Islands, Grenada (including Carriacou and Petit Martinique), Guyana, Netherlands Antilles (Curaçao, Sint Eustatius, Sint Maarten), St Kitts & Nevis (both islands), Saint Lucia, Saint Vincent and the Grenadines, Trinidad & Tobago (both islands), United States Virgin Islands (Saint Thomas).

Source: Pollard, G.V. (1997) Pink mealybug, *Maconellicoccus hirsutus*. **CPPC Circular Letter, no. 1/97, 1st June 1997. FAO Sub Regional Office for the Caribbean, Barbados**.

Additional key words: new records **Computer codes:** PHENHI, AN, GY, VG, VI, VC

97/165 EPPO guidelines for the efficacy evaluation of plant protection products now republished as EPPO standards

The EPPO guidelines for the efficacy evaluation of plant protection products describe the conduct of trials carried out to assess the efficacy of plant protection products against specific pests. Over many years, approximately 200 guidelines have been prepared. They are referred to in the EU Directive 91/414 concerning the placing of plant protection products on the market. All are now being completely revised and presented in the form of EPPO standards, and will be published as a set of four paperback volumes, which will be issued and distributed separately and at intervals over the coming year. The set will be available separately in English and in French. The volumes will be as follows:

Volume 1: General guidelines, nematicides, molluscicides, side-effects, rodenticides, general index
Volume 2: Fungicides, bactericides
Volume 3: Insecticides, acaricides
Volume 4: Herbicides, plant growth regulators

Volume 2 on fungicides and bactericides is now available (in English or French), and the other three volumes will appear very soon. The set of revised EPPO guidelines is now on sale, either as a whole or as separate volumes. A special discount price of 1500 FRF is offered for the complete set of 4 volumes. Otherwise, separate volumes can be ordered at the price of 500 FRF each. These prices apply separately to the English and French versions.
Orders should be addressed to:

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Note: Plant Protection Services of EPPO member countries and regular subscribers to earlier versions of EPPO guidelines have already been informed individually by the EPPO Secretariat.

Source: EPPO Secretariat, 1997-08.