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97/203 New data concerning quarantine pests

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

New geographical records

During a survey carried out in rice fields of north and south-western Sierra Leone and in the Coyah district of Guinea, *Aphelenchoides besseyi* (EPPO A2 quarantine pest) has been found. The EPPO Secretariat had previously no data on the occurrence of *A. besseyi* in Guinea. Nematological Abstracts, 66(3), p 179 (1270).

Tilletia indica (EPPO A1 quarantine pest) was detected on wheat spikes and kernels from Kerman, in the southern part of Iran. **This is the first record of *T. indica* in Iran.** Review of Plant Pathology, 76(11), p 1141 (8808).

During 1992-93, in Bolivia (in the Valle Alto, Cochabamba), *Pantoea stewartii* subsp. *stewartii* and *Erwinia chrysanthemi* (both EPPO A2 quarantine pests) were found in association with symptoms of bacterial wilt of maize. According to the EPPO Secretariat, this is the first report of these bacteria in Bolivia. Review of Plant Pathology, 76(10), p 1030 (7950).

A survey was carried out in 1994-95 in southern Ontario, Canada, on landscape trees to detect leaf scorch caused by *Xylella fastidiosa* (EPPO A1 quarantine pest). By using PCR techniques, *X. fastidiosa* was identified in three samples from *Ulmus americana*. All these trees were located within the Niagara Peninsula. This is the first report for Ontario, but also for Canada, and it represents the most northerly distribution of *X. fastidiosa*-infected trees in eastern North America. Review of Plant Pathology, 76(11), p 1196 (9234).

New detailed records

Amauromyza maculosa (EPPO A1 quarantine pest) is present in Florida (US). For United States, PQR indicates that this leafminer is present in eastern states (and Hawaii) but without further details. Review of Agricultural Entomology, 85(11), p 1392 (10936).

During field studies on insect pests of *Eugenia stipitata*, carried out near Iquitos (Peru) *Anastrepha obliqua* (EPPO A1 quarantine pest) was found. Review of Agricultural Entomology, 85(10), p 1233 (9750).

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Listronotus bonariensis (EPPO A1 quarantine pest) is reported attacking wheat shoots in Argentina in 1995, although this pest had not been seen in the country since 1972. Review of Agricultural Entomology, 85(10), p 1213 (9598).

Malacosoma disstria (EPPO A1 quarantine pest) occurs in Alberta, Canada. Review of Agricultural Entomology, 85(11), p 1377 (10830).

Ralstonia solanacearum (EPPO A2 quarantine pest) has been identified from wilted potatoes and their tubers in Pakistan (Utror, Miandam, Bajna and Kalam valley). It is felt that further surveys are needed to assess the incidence and severity of the disease in potato-growing areas of the country. Review of Plant Pathology, 76(10), p 1048 (8095).

Xanthomonas fragariae (EPPO A2 quarantine pest) was observed for the first time in 1991 in North Carolina (US), in commercial fields. [Ritchie, D.F.; Averre, C.W.; Milholland, R.D. (1993) First report of angular leaf spot, caused by *Xanthomonas fragariae*, on strawberry in North Carolina. Plant Disease, 77(12), p 1263.]

Source: EPPO Secretariat, 1997-10.

Additional key words: new records, new detailed records

Computer codes: APLOBE, ANSTOB, , ERWICH, ERWIST, HYROBO, PSDMSO, AR, BO, PE, PK, SL

97/204 *Xanthomonas campestris* pv. *dieffenbachiae* found in the Netherlands

Recently, *Xanthomonas campestris* pv. *dieffenbachiae* (EPPO A1 quarantine pest) has been found on *Anthurium andreanum* plants, in a company producing propagation material and cut flowers. The infestation on propagation material was eradicated. A survey was carried out in all enterprises producing cut flowers of *Anthurium*, and infected plants were found in ten of them. Eradication measures combining the elimination of infested plants, disinfection of tools and materials have been applied. On four of the cut flower-producing firms, the disease has been eradicated, and the eradication programme continues on the six other firms. In addition, it is noted that there is no indication that the disease occurs in other members of the Araceae family in the Netherlands.

Source: Plant Protection Service of the Netherlands, 1997-10.

Cevat, H.N. (1997) *Xanthomonas* in *Anthurium*.
Nieuwsbrief, 4(6), Wageningen (NL), p 2.

Additional key words: new record

Computer codes: XANTDF, NL

EPPO *Reporting Service*

97/205 Present situation of *Ralstonia solanacearum* in the Netherlands

The situation of *Ralstonia solanacearum* (EPPO A2 quarantine pest) in the Netherlands was presented in details in the EPPO RS 97/111. The Plant Protection Service of the Netherlands informed the EPPO Secretariat of further test results for the potato harvests of 1996 and 1997 (until 1997-10-01).

Potato harvest 1996

- Number of tested potato samples: 64,463. This includes samples taken during the survey and before issuing plant passports.
- Number of infested farms: 14, including 9 seed potato-growing farms and 5 ware potato-growing farms.
- Number of areas with infested surface water and therefore submitted to a prohibition on use of surface water for irrigation and spraying in potato and tomato crops : 30.

Potato harvest 1997 (until 1997-10-01)

- Number of tested potato samples: 31,000.
- Number of infested farms: 1 ware potato-growing farm.

For the 1997 potato harvest, it is expected that approximately 70,000 samples will be tested for *R. solanacearum*, including samples taken during the survey, before issuing plant passports and samples taken from farm saved seed potatoes.

Source: **Plant Protection Service of the Netherlands, 1997-10.**

Additional key words: detailed record

Computer codes: PSDMSO, NL

97/206 Potato pests in Indonesia: first report of *Liriomyza huidobrensis*

A Japanese paper presents the main pests and diseases which are found on potatoes in Indonesia, as a cooperative project is being set up between Japan and Indonesia for the production of pathogen-free seed potatoes. It is recalled that potato cultivation in Indonesia started with the colonial era of the Netherlands, in the elevated region near Jakarta. At present, the major production areas are the elevated regions near Bandung in West Java, Dien in Central Java, the highlands near Malang in East Java and Toba lake area in North Sumatra. These production areas are situated at altitudes between 1000 m to 2000 m. Potatoes are mainly produced for consumption as a high-value vegetable, but production for processing (potato crisps) is now increasing.

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The most serious disease is potato late blight (*Phytophthora infestans*) which can be highly destructive during the rainy season. Serious damage is also caused by dry rot (*Fusarium* sp.). Bacterial wilt (*Ralstonia solanacearum* – EPPO A2 quarantine pest) is also widespread in potato fields. Viruses like potato leaf roll luteovirus and potato Y potyvirus are commonly observed. Potato X potyvirus and potato S carlavirus have occasionally been detected. The aphid vectors *Myzus persicae*, *Macrosiphum euphorbiae*, and *Aulacorthum solani* are observed in potato fields throughout the year. Potato tuber moth, *Phthorimaea operculella*, damages leaves in the field and tubers in storage, particularly during the dry season. Several thrips species occur on potatoes but the economically important one is *Thrips palmi* (EPPO A1 quarantine pest). In recent years, leafminers are causing increasing problems. The dominant leafminer species is *Liriomyza huidobrensis* (EPPO A2 quarantine pest) which is a recent introduction. The first damage of *L. huidobrensis* were seen in July 1994 in the surroundings of Bandung in West Java. The EPPO Secretariat had no previous report of *L. huidobrensis* in Indonesia (although *Liriomyza* species were reported as new important pests at the 20th session of APPPC – see EPPO RS 97/177). Damage caused by root-knot nematodes (*Meloidogyne incognita*, *M. hapla*, *M. javanica* and *M. arenaria*) are also observed. Finally, the other minor pests and diseases found in Indonesia are the following: cutworms (*Agrotis* spp.), armyworms (*Spodoptera* spp.), soft rots (*Erwinia carotovora*), black scurf (*Rhizoctonia solani*), common scab (*Streptomyces scabies*), powdery scab (*Spongospora subterranea*) and early blight (*Alternaria solani*).

Source: Katayama, K.; Teramoto, T. (1997) Seed potato production and control of insect pests and diseases in Indonesia.
Agrochemicals Japan, no. 70, 22-25.

Additional key words: new record

Computer codes: LIRIHU, ID

97/207 *Pseudomonas syringae* pv. *pisi* is present in Syria

Studies were carried in Syria on the incidence of *Pseudomonas syringae* pv. *pisi* (EPPO A2 quarantine pest) in peas. Results showed that the disease is widespread in the coastal area (75-100% of pea plants were infected with a severity of 50-75%), and less important in the internal region (25-40% infection and 5-25% severity). The EPPO Secretariat had previously no data on the occurrence of *Pseudomonas syringae* pv. *pisi* in Syria.

Source: El-Ahmed, A.; Hamwieh, A.; Dibs, B.; Makkouk, K.M. (1997) Bacterial blight of pea *Pisum sativum* caused by *Pseudomonas syringae* pv. *pisi* in Syria.
Abstract of a paper presented at the 6th Arab Congress of Plant Protection , 1997-10-27/31, Beirut (LB), p 320.

Additional key words: new record

Computer codes: PSDMPI, SY

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97/208 *Phytophthora fragariae* pv. *fragariae* is present in Syria

In Syria, the strawberry production area is situated along the coastal region, and this production is now increasing. A survey was carried out on the major diseases of strawberry, which are the following in order of importance: collar or crown rot (*Phytophthora cactorum*), red stele (*Phytophthora fragariae* pv. *fragariae* – EPPO A2 quarantine pest), fruit rots (*Botrytis cinerea*, *P. cactorum* and *Rhizopus* sp.), powdery mildew (*Sphaerotheca macularis*) and anthracnose (*Colletotricum gloeosporioides*). The EPPO Secretariat had previously no data on the occurrence of *Phytophthora fragariae* pv. *fragariae* in Syria.

Source: Khafte, A.R.; Sary, S. (1997) Survey and diagnosis of strawberry diseases in the coastal area of Syria.

Abstract of a paper presented at the 6th Arab Congress of Plant Protection , 1997-10-27/31, Beirut (LB), p 303.

Additional key words: new record

Computer codes: PHYTFR, SY

97/209 Tomato spotted wilt tospovirus is present in Sudan

Capsicum is one of the major vegetable crops in Sudan and is affected by many mosaic-inducing viruses. Surveys were conducted in Sudan to identify the causal agents. The results showed that cucumber mosaic cucumovirus and tobacco mosaic tobamovirus are widespread on both *C. annuum* and *C. frutescens*. Tomato spotted wilt tospovirus (EPPO A2 quarantine pest) was also found on pepper during this study. The EPPO Secretariat had previously no data on the occurrence of tomato spotted wilt tospovirus in Sudan.

Source: Elshafie, E.E.; Gebr, S.; Dafalla, G.A.; Marchoux, G. (1997) Identification of viruses infecting peppers in Central Sudan.

Abstract of a paper presented at the 6th Arab Congress of Plant Protection , 1997-10-27/31, Beirut (LB), p 198.

Additional key words: new record

Computer codes: TMSWXX, SD

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97/210 Citrus tristeza closterovirus is present in Lebanon

Studies were carried out in Lebanon on the sanitary status of citrus orchards. A total of 7556 citrus trees were tested. Results showed that the incidence of citrus tristeza closterovirus (EPPO A2 quarantine pest) in south Lebanon was high and could reach up to 32% incidence in some orchards, while it did not exceed 8% in the tested orchards in the north. As for the general sanitary status of the citrus orchards in Lebanon, the following disease incidences were recorded: 2.3% for citrus tristeza closterovirus, 33% for cachexia, 31% for exocortis, 26% for psorosis, 10% for *Spiroplasma citri* (EPPO A2 quarantine pest), 1% for the infectious variegation virus. However, citrus tatter leaf capillovirus (EPPO A1 quarantine pest) and Satsuma dwarf 'nepovirus' (EPPO A2 quarantine pest) were not found. The EPPO Secretariat had previously no data on the occurrence of citrus tristeza closterovirus in Lebanon.

Source: Saade, P.; Khoury, W.; de Nivea, A.M.; Savino, V. (1997) Evaluation of the sanitary status of citrus trees in Lebanon and the incidence of CTV in infected orchards.

Abstract of a paper presented at the 6th Arab Congress of Plant Protection , 1997-10-27/31, Beirut (LB), p 189.

Additional key words: new record

Computer codes: CSTXXX, LB

97/211 Peach latent mosaic viroid is present in Lebanon

During the last three years, studies were carried out in Lebanon on the sanitary status of stone-fruit tree orchards. Results of this survey concerning virus and virus-like diseases have been presented in details in the EPPO Bulletin (Jawhar *et al.*, 1996). In addition to these results, peach latent mosaic viroid (quarantine status under review) was detected in peaches by indexing and molecular hybridization. The EPPO Secretariat had previously no data on the occurrence of peach latent mosaic viroid in Lebanon.

Source: Jawhar, J.; Di Terlizzi, B.; Khoury, W.; Savino, V.(1996) Preliminary account of the phytosanitary status of stone-fruit trees in Lebanon.

Bulletin OEPP/EPPO Bulletin, 26(1), 161-166.

Jawhar, J.; Di Terlizzi, B.; Turturro, C.; Khoury, W.; Savino, V.(1997) Virus and virus-like diseases of stone fruits in Lebanon.

Abstract of a paper presented at the 6th Arab Congress of Plant Protection , 1997-10-27/31, Beirut (LB), p 214.

Additional key words: new record

Computer codes: PCLMXX, LB

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97/212 Phytosanitary incident: *Bemisia tabaci* found in Ireland

Following an earlier Danish notification regarding the finding of *Bemisia tabaci* (EPPO A2 quarantine pest) on an Irish consignment of *Euphorbia pulcherrima*, an intensive survey was carried out in Ireland on nurseries producing *E. pulcherrima*. *B. tabaci* has been found on four nurseries, and in all cases the cuttings originated from a German company. Control programmes are being carried out to eradicate *B. tabaci*.

Source: **Plant Protection Service of Ireland, 1997-10.**

Additional key words: phytosanitary incident

Computer codes: BEMITA, IE

97/213 *Opogona sacchari* found and eradicated in Hungary

In 1993 in Hungary, damage of *Opogona sacchari* (EPPO A2 quarantine pest) was observed in stems of two *Dracaena fragrans* (cv. Massangeana) plants belonging to the collection of an occasional florist in Budapest. The pest was rapidly eradicated. This first occurrence of *O. sacchari* in Hungary in 1993 can be regarded as a singular and isolated case, as the pest was never found again.

Source: Tusnádi, C.K.; Sebestyén, R.; Mészáros, Z. (1997) [Occurrence of the banana moth (*Opogona sacchari* Bojer) (Lepidoptera: Tineidae) in Hungary, in stems of *Dracaena fragrans* (cv. Massageana).] **Növényvédelem, 33(10), 501-507.**

Additional key words: eradication

Computer codes: OPOGSC, HU

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97/214 Findings and eradication of *Plasmopara halstedii* and *Xanthomonas fragariae* in the Netherlands

- *Plasmopara halstedii* (EPPO A2 quarantine pest) has been found in a trial field of sunflower in the Netherlands. The origin of this infection was infected seeds. Eradication measures were taken and the infected lot was destroyed. In addition, the growing of sunflower on the infested field is prohibited for eight years.
- *Xanthomonas fragariae* (EPPO A2 quarantine pest) was found in strawberry plants. Eradication of the infestation was achieved by destroying the infected plant material.

Source: Plant Protection Service of the Netherlands, 1997-10.

Additional key words: eradication

Computer codes: PLASHA, XANTFR, NL

97/215 Plum pox potyvirus in Azores (PT): further details

As reported in EPPO RS 97/185, the Plant Protection Service of Portugal confirms that three foci of plum pox potyvirus (EPPO A2 quarantine pests) have been detected in the island of Terceira, Azores (PT). All the 22 diseased trees have been immediately destroyed and an extensive survey is being carried out in this region.

Source: Plant Protection Service of Portugal, 1997-11.

Additional key words: detailed record

Computer codes: PLPXXX, PT

97/216 No *Thrips palmi* found during the 1997 survey in the Netherlands

Due to previous outbreaks of *Thrips palmi* (EPPO A1 quarantine pest – see EPPO RS 96/193, 95/156, 95/048, 93/079) in the Netherlands on *Ficus benjamina*, an on-going survey is being carried out. *Ficus*-growing firms are inspected twice a month, and from 1996-10-01 to 1997-09-15, a total of 4392 inspections have been performed. In addition to this survey, further checks are carried out: 1) in outdoor growing crops and weeds during summer; 2) in indoor firms growing cut flowers, pot plants and vegetables; 3) on auction markets; and 4) during export inspections. No *T. palmi* was found.

Source: Plant Protection Service of the Netherlands, 1997-10.

Additional key words: survey

Computer codes: THRIPL, NL

EPPO *Reporting Service*

97/217 *Tilletia indica* is not present in Hungary

The Plant Protection Service of Hungary had been notified by the Phytosanitary inspectorate of Turkey that two consignments of wheat from Hungary were rejected because of the presence of *Tilletia indica* (EPPO A1 quarantine pest). The Hungarian Plant Protection Service has inspected all the storehouses on the places of production and loading sites, and no *T. indica* was found. Only one sample was found infected by *T. foetida* which is not a quarantine pest. The Hungarian authorities stressed that Hungary is free from *T. indica*.

Source: **Plant Protection Service of Hungary, 1997-10.**

Additional key words: absence

Computer codes: NEOVIN, HU

97/218 Poinsettia leaf curl: a new disease in Taiwan caused by a geminivirus

In Taiwan, a serious disease was recently observed on poinsettia (*Euphorbia pulcherrima* cv. Angelica). Symptoms were characterized by downward leaf curling and vein enation. Diseased plants were usually heavily infested with *Bemisia tabaci* (EPPO A2 quarantine pest). Twinned particles (16-18 x 30-32 nm) could be detected in a purified preparation obtained from diseased tissues, indicating that the disease may be caused by a geminivirus. When this agent was transmitted to healthy poinsettia by whiteflies or bud grafting, the plants also developed leaf curl symptoms. The authors noted that this virus present some similar features with tobacco leaf curl bigeminivirus.

Source: Tsai, M.C.; Liu, C.S.; Su, H.J. (1997) Poinsettia leaf curl, a new disease caused by a geminivirus.
Journal of Phytopathology, 145(8-9), 347-350.

Additional key words: new pest

Computer codes: TW

EPPO *Reporting Service*

97/219 New peach disease in Egypt caused by *Bacillus pumilus*

In Egypt, during the last few years, an unusual bacterial disease of Balady peach fruits and leaves (*Prunus persicae* cv. Balady) became common in El-Minia Governorate. The disease is now widespread in all local peach orchards and causes heavy yield losses. Symptoms are characterized by light brown blotch which covers large area of immature fruit surface. Some brown spots also occur on the leaves. A bacterium was consistently isolated from naturally infected tissues and from inoculated plants. The isolated bacterium was identified as *Bacillus pumilus* according to its physiological and biochemical properties, pathogenicity, electron microscopy and fatty acid composition analysis. In laboratory conditions, this pathogen can cause soft rots on many fruits species (peach, plum, apple, pear), on garlic cloves and plant tissues (slices of potato tuber, carrot) which suggest that *B. pumilus* is a wound parasite able of inducing softening of fruits and vegetables under relatively high humidity. It was observed that *B. pumilus* produced pectic enzymes (endopolygalacturonase and endopectin lyase) *in vivo* and *in vitro*. In addition, *B. pumilus* was able to infect some unwounded fruits of peach and pear, possibly through lenticels. This is the first report of *B. pumilus* causing a disease on peach in Egypt.

Source: Saleh, O.I.; Huang, P.Y., Huang, J.S. (1997) *Bacillus pumilus*, the cause of bacterial blotch of immature Balady peach in Egypt.
Journal of Phytopathology, 145(10), 447-453.

Additional key words: new disease

Computer codes: EG

EPPO *Reporting Service*

97/220 Studies on the biotypes of *Bemisia tabaci* in France and Tunisia

France (Guirao *et al.*, 1997):

Studies were carried out in Côte-d'Azur to characterize the biotypes of *Bemisia tabaci* (EPPO A2 quarantine pest) present. Larvae and adults of *B. tabaci* were collected in glasshouses of ornamental plants in the regions of Hyères and Antibes, in glasshouses of the floral exhibition in Nice and from wild plants in Antibes and along the Var coast. Collected populations were tested by using the RAPD-PCR technique and the induction of squash silverleaf symptom in the laboratory. Results showed that all tested populations belonged to the B biotype (also referred to as *B. argentifolii*).

Tunisia (Chemiti *et al.*, 1997):

Larvae and adults of *B. tabaci* were collected from various host plants (vegetables and ornamentals plants grown outdoor or under glass) and from various geographical regions in Tunisia, from April to November 1996. Collected populations were tested by using the RAPD-PCR technique. Results showed that both B biotype and non-B biotype are present in Tunisia, but their occurrence could not be related to host plants or geographical areas. In some populations, both biotypes could be observed. The B biotype could be identified on tomato, capsicum, cucumber, watermelon, melon, *Lantana camara*, *Cistrum nocturnum*. Non-B biotype was found on *Lantana camara*, and cucurbits. In addition, two species of parasitoids were identified in the tested populations: *Eretmocerus mundus* and *Encarsia transvena*. Only *E. mundus* was present in all biotopes, *E. transvena* was essentially found on populations of *B. tabaci* on outdoor *Lantana* plants.

Source: Chemiti, B.; Braham, M.; Cenis, J.L.; Alonso, C.; Beitia, F. (1997) Sur la présence en Tunisie des biotypes 'B' et 'non B' de *Bemisia tabaci* (Homoptera: Aleyrodidae) et de leurs parasitoïdes associés.

IOBC WPRS Bulletin, 20(4), 108-113.

Guirao, P.; Onillon, J.C.; Beitia, F.; Cenis, J.L. (1997) Présence en France du biotype 'B' de *Bemisia tabaci*.

Phytoma – La Défense des Végétaux, no. 498, 46-48.

Additional key words: detailed records

Computer codes: BEMITA, FR, TN

EPPO *Reporting Service*

97/221 Preliminary studies on the potential vectors of European stone fruit yellows phytoplasma

Several phytoplasma diseases of stone fruits described under various names (e.g. Apricot chlorotic leaf roll phytoplasma – EPPO A2 quarantine pest, Japanese plum leptonecrosis, peach yellows etc.) are now considered to be caused by the European stone fruit yellows phytoplasma (see EPPO RS 96/003 and 97/076). In 1994-96, studies were carried out in two infected orchards of apricot and plum in Emilia-Romagna (Italy) on the potential vectors of the European stone fruit yellows phytoplasma. The presence of the phytoplasma could be detected by nested-PCR in Cicadellidae (in sub-family Typhlocybae and in the genera *Anaceratagallia* and *Euscelis*). The proportion of leafhoppers carrying the phytoplasma was low. The authors pointed out the no firm conclusions can be drawn, as it is well known that the detection of phytoplasmas in an insect does not necessarily indicate that the insect is a vector, nevertheless such results can be the starting point for further transmission experiments studies with leafhoppers.

Source: Poggi Pollini, C.; Giunchedi, L.; Bussani, R.; Mordenti, G.L.; Nicoli, Aldini, R.; Cravedi, P. (1997) Early results of work on the vectors of European stone fruit yellows phytoplasma.
IOBC Bulletin, 20(6), 39-42.

Additional key words: epidemiology

Computer codes: ABCLRX

EPPO *Reporting Service*

97/222

Comparative studies on lethal diseases of coconuts

Phytoplasmas associated with lethal diseases of palms are found in several regions of the world. Palm lethal yellowing phytoplasma (EPPO A1 quarantine pest) is present in several countries in the Caribbean, in Mexico, Belize and Honduras. Similar diseases are reported from West Africa (Cape St Paul wilt disease in Ghana, Kribi disease in Cameroon, Kaincopé in Togo and Awka disease in Nigeria) and East Africa (in Tanzania, Kenya, Mozambique). Similarities between the disease syndromes have led to the assumption that palm lethal yellowing observed in the Caribbean region and the African lethal diseases were similar. However, important differences in epidemiology and varietal susceptibility suggest differences between pathogens on each continent, and also between east and west Africa.

In a previous study (see EPPO RS 94/223), it was found that the palm lethal yellowing phytoplasma, although related, is different from coconut lethal disease phytoplasmas found in east Africa. The present studies were carried out to compare west African phytoplasmas with palm lethal yellowing phytoplasma and the pathogens found in east Africa, by using molecular techniques (cloned palm lethal yellowing phytoplasma probes in DNA dot hybridization plus PCR amplification and RFLP analysis of 16S rRNA genes). Genetic similarities were found between the phytoplasmas, as the DNA probes (cloned from palm lethal yellowing phytoplasma) hybridize to infected palms from various regions of east and west Africa. However, studies using PCR and RFLP showed that African isolates are different from palm lethal yellowing phytoplasma, and that differences are observed between isolates from east and west Africa. However, it was observed that the phytoplasmas found in Ghana and Nigeria (respectively causing Cape St Paul wilt disease and Awka disease) are probably the same pathogen. The authors concluded that their studies suggested that coconut phytoplasmas found in the Caribbean, east and west Africa, although genetically related, are different, indicating the presence of three distinct isolates. In addition, they felt that the use of PCR with RFLP will be a useful tool for diagnosis of the pathogen and epidemiological studies.

Source: Tymon, A.M.; Jones, P.; Harrison, N.A. (1997) Detection and differentiation of African coconut phytoplasmas: RFLP analysis of PCR-amplified 16S rDNA and DNA hybridisation.
***Annals of applied Biology*, 31(1), 91-102.**

Additional key words: genetics

Computer codes: PALYXX

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97/223 Changes at EU phytosanitary inspectorate

As part of the changes within the Commission services, the phytosanitary inspectorate is now part of the DG XXIV (Consumer policy and consumer health protection) and more particularly of the Food and Veterinary Office, Unit 3 (phytosanitary controls). Since the 1st September 1997, the official address is the following:

European Commission
DG XXIV
Food and Veterinary Office
Unit 3 (phytosanitary controls)
Black Rock
Co-Dublin
Ireland
Fax: 353 1 2064 703

At present, part of the Unit 3 staff is in Dublin, at the above address:

M. Knoppers, M. de Backer, M. Sinclair and the secretaries: Ms Gaynor, Ms Prendergast and Ms Walker.

Another part of the phytosanitary inspectorate is still in Brussels, but has moved to another building at the following address:

DG XXIV
232 rue Belliard
B-1049 Brussels
Belgium
Fax: 32 2 296 47 14

M. Berling (room 1/53, tel: 32 2 229 12 18), M. Flüh (room 1/51, tel: 32 2 295 36 51), M. Gennatas (room 9/12, tel: 32 2 295 97 13), M. Oliva (room 1/55, tel: 32 2 295 68 17), Ms Ribaille (room 1/49, tel: 32 2 299 46 91) and the secretary Ms Guerra (room 1/21, tel: 32 2 296 28 15).

Source: European Commission, DG XXIV, Food and Veterinary Office, Unit 3 (phytosanitary controls), Dublin, 1997-10.

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97/224 New EPPO Electronic Documentation Service: reminder

As reported previously, the EPPO Electronic Documentation Service is a mail system (not a Web site) from which you can obtain EPPO files, by sending very simple e-mail messages to the following address: **eppo_docs@eppo.fr**

Note: 1) messages should be kept very simple without signature or greetings.
2) a single message can contain several requests.

How to access the EPPO Electronic Documentation Service

1) Register as a user

EPPO files have been separated into five directories according to the topic concerned:

PPPstandards (EPPO standards on plant protection products)

PQstandards (EPPO standards on plant quarantine)

Regulations (EPPO summaries of phytosanitary regulations and original texts)

Reporting (EPPO Reporting Service)

Publications (various EPPO publications, e.g. data sheets)

To receive the EPPO files, you have first to register as a user of the directory(ies) you are interested in (as many as you want), by sending the following e-mail message to **eppo_docs@eppo.fr**

Join (name of the directory you want)

Example : Join Reporting

You will receive in return two messages. One is a transaction report which tells you that you successfully joined the chosen directory and the second gives a full explanation on how to obtain the contents of the directory, and then the files. You can join as many directories as you want in a single message.

Example : Join Reporting

Join Regulations

Join PPPstandards

2) Obtain the contents

Send the following e-mail message to **eppo_docs@eppo.fr**

Dir (name of the directory you want)

Example: Dir Reporting

You will again receive in return two messages. One is a transaction report which tells you that the command was completed and the second will be entitled (for example) 'directory for the list Reporting', and will list all the file names. Similarly, you can ask for the contents of several directories in a single message.

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3) Get the files

Send the following e-mail message to **eppo_docs@eppo.fr**

Get (name of the directory name of the file)

Example: Get Reporting rse-9701.doc

You will again receive in return two messages. One is a transaction report which tells you that the command was completed and the second will contain the requested file as an attachment.

You can obtain several files with a single request.

Example : **Get Reporting rse-9701.doc**

Get Reporting rse-9702.doc

Get Regulations pre-cy.exe

Get Regulations sue-ru.exe

Current contents

At present, the current contents are the following, but the EPPO Secretariat is planning to expand the number of documents. Note that the approved FAO standards for phytosanitary measures (ISPM no. 1 to 4) and the glossary of phytosanitary terms have recently been added to the directory 'Publications'.

• **PPPstandards**

The revised EPPO guidelines on efficacy testing on fungicides and bactericides have recently been included. In order to facilitate access to these 112 guideline files, lists (in English 'listgl-e.doc' and French 'listgl-f.doc') give the title of the guideline and the corresponding file name.

• **PQstandards**

EPPO Specific Quarantine Requirements (English and French). File names: sqe-doc.exe, sqf-doc.exe.

• **Regulations**

EPPO Summaries of phytosanitary regulations

- Bulgaria (English): File name: sue-bg.exe
- Croatia (English). File name: sue-hr.exe
- Cyprus (English). File name; sue-cy.exe
- Cyprus update (English). File name; sue-cy2.exe
- Estonia (English). File name: sue-ee.exe
- EU Member States (in 3 parts, in English and French). File names: sue-eua.exe, sue-eub.exe, sue-euc.exe, suf-eua.exe, suf-eub.exe, suf-euc.exe
- Guernsey (English).File name: sue-gv.exe
- Hungary (English). File name : sue-hu.exe
- Israel (English). File name: sue-il.exe
- Latvia (English). File name: sue-lv.exe
- Lithuania (English). File name: sue-lt.exe

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- Malta (English). File name: sue-mt.exe
- Morocco (English). File name: sue-ma.exe
- Norway (English). File name : sue-no.exe
- Poland (English). File name: sue-pl.exe
- Romania (English). File name: sue-ro.exe
- Russia (English and French). File names: sue-ru.exe, suf-ru.exe
- Slovakia (English). File name: sue-sk.exe
- Slovenia (English). File name : sue-si.exe
- Tunisia (English). File name: sue-tn.exe
- Turkey (English). File name: sue-tr.exe
- Ukraine (English). File name: sue-ua.exe

Texts of phytosanitary regulations

- Croatia (English). File name: pre-hr.exe
- Cyprus (English). File name: pre-cy.exe
- Estonia (English). File name: pre-ee.exe
- EU Member States (in 3 parts, in English and French). File names: pre-eua.exe, pre-eub.exe, pre-euc.exe, prf-eua.exe, prf-eub.exe, prf-euc.exe
- Hungary (English). File name: pre-hu.exe
- Israel (English). File name: pre-il.exe
- Lithuania (English). File name: pre-lt.exe
- Malta (English). File name: pre-mt.exe
- Morocco (French). File name: prf-ma.exe
- Norway (English). File name: pre-no.exe
- Poland (English). File name: pre-pl.exe
- Russia (English). File name: pre-ru.exe
- Slovakia (English). File name: pre-sk.exe
- Slovenia (English). File name: pre-si.exe
- Turkey (English). File name: pre-tr.exe
- Turkey update (English). File name: pre-tr2.exe
- Ukraine (French). File name: prf-ua.exe

• **Reporting**

EPPO Reporting Service for 1996 (English and French). File names: rse-9601.doc, rse-9602.doc, rse-9603.doc, rse-9604.doc, rse-9605.doc, rse-9606.doc, rse-9607.doc, rse-9608.doc, rse-9609.doc, rse-9610.doc, rse-9611.doc, rse-12.exe, rse-1996.exe (single file which contains all articles published in 1996). rsf-9601.doc, rsf-9602.doc, rsf-9603.doc, rsf-9604.doc, rsf-9605.doc, rsf-9606.doc, rsf-9607.doc, rsf-9608.doc, rsf-9609.doc, rsf-9610.doc, rsf-9611.doc, rsf-9612.exe, rsf-1996.exe

EPPO Reporting service for 1997 (January to November). File names: rse-9701.doc, rse-97-02.doc, rse-9703.doc, rse-9704.doc, rse9705.doc, rs9706.doc, rs9707.doc, rs9708.doc, rs9709.doc, rs9710.doc, rs9711.doc, rsf-9701.doc, rsf-9702.doc, rsf-9703.doc, rsf-9704.doc,

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rsf-9705.doc, rsf-9706.doc, rsf-9707.doc, rsf-9708.doc, rsf-9709.doc, rsf-9710.doc, rsf-9711.doc.

- **Publications**

Data sheets in English and French (first edition of Quarantine Pests for Europe):

dse-doc.exe and dsf-doc.exe. In the near future, these will be replaced by data sheets of the second edition.

FAO International Standards for Phytosanitary Measures (in English and French)

- Principles of plant quarantine as related to international trade. Files names: ispm1.doc (English); nimp1.doc (French).

- Guidelines for pest risk analysis. Files names: ispm2.doc (English); nimp2.doc (French).

- Code of conduct for the import and release of exotic biological control agents. Files names: ispm3.doc (English); nimp3.doc (French).

- Requirements for the establishment of pest-free areas. Files names: ispm4.doc (English); nimp4.doc (French).

Glossary of phytosanitary terms (English and French versions together in a single file called glo-ef.doc), which corresponds to the EPPO Technical Document no. 1026 of 1996-10.

Please let the EPPO Secretariat know about your success and/or difficulties in connecting to this new information system.

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