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CONTENTS

99/094 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**

Peach latent mosaic viroid (quarantine status under review) has been detected in a nectarine tree with abnormal growth (reduced leaf production, rosetting) in South Australia. This is the first report of peach latent mosaic viroid in Australia. Review of Plant Pathology, 78(6), p 542 (4135).

In southern China, *Phialophora cinerescens* (EPPO A2 quarantine pest) and *Fusarium oxysporum* f.sp. *dianthi* are the main pathogens of carnations. This is the first report of *P. cinerescens* from China. Review of Plant Pathology, 78(4), p 396 (3004).

Phyllocnistis citrella was detected for the first time in Yugoslavia in 1995. It was found on citrus orchards on the coast of Montenegro. Review of Agricultural Entomology, 87(5), p 631 (4740).

Xanthomonas axonopodis pv. *dieffenbachiae* (EPPO A1 quarantine pest) causes bacterial blight disease on *Anthurium* in Taiwan. This is the first report of *X. axonopodis* pv. *dieffenbachiae* in Taiwan. Review of Plant Pathology, 78(4), p 396 (3009).

- **Detailed records**

In Brazil, *Anastrepha fraterculus* (EPPO A1 quarantine pest) occurs in the state of Minas Gerais. It was found during surveys done in commercial orchards of guavas (*Psidium guajava*). Review of Agricultural Entomology, 87(5), p 632 (4752).

In Brazil, *Ceratitis capitata* (EPPO A2 quarantine pest) was found for the first time in the eastern Amazon, in the State of Pará. It was observed on *Averrhoa carambola* (carambola) and *Malpighia glabra* fruits in February 1997. Review of Agricultural Entomology, 87(6), p 773 (5814).

Helicoverpa zea (EPPO A1 quarantine pest) occurs in the province of Jujuy in Argentina, and causes damage to maize. Review of Agricultural Entomology, 87(6), p 746-747 (5601).

Liriomyza bryoniae (EU Annex I/A2) occurs on protected tomato crops in Jersey. Review of Agricultural Entomology, 87(5), p 618 (4651).

Stone fruit trees from western Slovakia (*Prunus armeniaca*, *P. domestica*, *P. persica* and *P. cerasifera*) showing symptoms of plum pox potyvirus (PPV - EPPO A2 quarantine pest) were tested by PCR. Results demonstrated the prevalence of PPV-M strains in the tested samples. Review of Plant Pathology, 78(4), p 377 (2846).

In Poland from 1990 to 1994, a survey on scale insects was conducted in fruit orchards of the Lublin area. As a result, 11 scale species were found, including *Quadraspidiotus perniciosus* (EPPO A2 quarantine pest). In PQR, this pest was previously considered as not established. Review of Agricultural Entomology, 87(5), p 621 (4668).

In Venezuela, *Ralstonia solanacearum* (EPPO A2 quarantine pest) was isolated from potato tubers and stems from the state of Lara. Review of Plant Pathology, 78(4), p 364 (2751).

Strawberry vein banding ?caulimovirus (EPPO A2 quarantine pest) was detected by PCR and dot-blot hybridization in samples of wild strawberry plants from south-eastern Serbia (YU). This report in Yugoslavia confirms earlier observations based on symptoms. Review of Plant Pathology, 78(4), p 378 (2855).

In Brazil, *Xanthomonas axonopodis* pv. *citri* (EPPO A1 quarantine pest) was found to be associated with *Phyllocnistis citrella* damage in the States of Paraná, Rio Grande do Sul and São Paulo. It was observed that citrus canker pustules were often located over and along the entire length of larval galleries on citrus leaves and branches. This report confirms earlier records of citrus canker in Rio Grande, and provides new detailed information on the occurrence of *P. citrella* in Paraná and Rio Grande do Sul. Review of Plant Pathology, 78(5), p 460 (3511).

- **New host plants**

In Brazil, tomato is reported as a new host plant of chrysanthemum stem necrosis tospovirus. Review of Plant Pathology, 78(4), p 368 (2778).

Ralstonia solanacearum (EPPO A2 quarantine pest) race 1 biovar 1 was isolated from diseased pothos cuttings (*Epipremnum aureum*) imported to Florida (US) from Costa Rica. Review of Plant Pathology, 78(6), p 565 (4312).

Source: **EPPO Secretariat, 1999-06.**
Review of Agricultural Entomology, 87(4-6). April to June 1999.
Review of Plant Pathology, 78(4-6). April to June 1999.

Additional key words: new records, detailed records, new host plants

Computer codes: ANSTFR, CERTCA, CHSNXX, HELIZE, LIRIBO, PCLMXX, PHIACI, PHYNCI, PLPXXX, PSDMSO, QUADPE, SYVBXX, XANTCI, XANTDF, AR, AU, BR, CN, JS, PL, SK, TW, VE, YU

99/095 Situation of several pests of quarantine importance in Italy in 1998

Yearly reports on the phytosanitary situation of Italian regions are published in 'Informatore Fitopatologico'. The EPPO Secretariat has extracted the following information on several pests of quarantine importance for the year 1998.

Clavibacter michiganensis subsp. *michiganensis* (EPPO A2 quarantine pest): 1 outbreak was found in Lombardia on tomato.

Erwinia amylovora (EPPO A2 quarantine pest): In Emilia-Romagna, serious and unexpected outbreaks occurred in 1997. The 1998 situation was similar, but conditions were less favourable to fireblight. Strict phytosanitary measures are being applied to contain the disease. In Lombardia, 15 foci are reported in 1998 (11 in 1997). The new foci were found in the Provinces of Mantova and in Bergamo, essentially on pear. Infected plants are being destroyed. Surveys will be intensified in nurseries and orchards. In Veneto, fireblight was found for the first time in 1997, and was still present in 1998 in the south of the region (Rovigo, Bassa Padovanna, Basso Veronese) on pear (*Pyrus communis* cvs. Passe Crassane and Abate).

Grapevine flavescence dorée (EPPO A2 quarantine pest) and bois noir phytoplasmas: These phytoplasmas were found in Veneto and in Friuli-Venezia-Giulia. Foci of grapevine flavescence dorée are limited. Action is taken to prevent any further spread.

Plum pox potyvirus (EPPO A2 quarantine pest): In Emilia Romagna, 74 foci were found in 1998. In Lombardia, systematic surveys detected 14 foci. The most serious were found near Brescia on *Prunus domestica* cv. Elegant Lady.

Rhagoletis completa: Severe damage was reported in Piemonte and Valle d'Aosta regions. The pest now occurs in all walnut-growing areas in this region.

Xanthomonas arboricola pv. *pruni* (EPPO A2 quarantine pest): The disease occurs in Abruzzi on apricot, peach and plum. It is spreading in Lazio. A limited infection was found in Veneto.

Source: Bilancio Fitosanitario dell'anno 1998.
Informatore Fitopatologico, no. 3, 5-34.
Informatore Fitopatologico, no. 4, 3-39.

Additional key words: detailed records

Computer codes: CORBMI, ERWIAM, GVFDXX, GVBNXX, PLPXXX, RHAGCO, XANTPR, IT

99/096 EU import prohibition of Egyptian potatoes

Ralstonia solanacearum (EPPO A2 quarantine pest) occurs in Egypt and has repeatedly been found on Egyptian consignments of ware potatoes imported into the European Union (see EPPO reports of intercepted consignments). In order to avoid the introduction of this quarantine pest, particular requirements concerning potato imports from Egypt were stated in Commission Decision '96/301/EC authorizing Member States temporarily to take emergency measures against the dissemination of *Pseudomonas solanacearum* (Smith) Smith as regards Egypt' and its amended versions. One of the main requirement was that potatoes must have been produced in fields located in approved 'pest-free areas' in Egypt. However, large amounts of infected potatoes continued to be intercepted in trade. An additional provision was made to the Commission Decision stating that, as soon as more than 5 interceptions of *Ralstonia solanacearum* have been confirmed in lots of potatoes introduced into the Community during the 1998/1999 import season, potato imports would be prohibited. Attainment of this threshold was considered to indicate that the method for the identification of 'pest-free areas' or the procedures for official monitoring in Egypt were not sufficient to prevent the risk of introduction. On 1999-04-03, more than 5 interceptions of infected potatoes from Egypt had been notified by EU Member States. The European Commission and the Standing Committee on Plant Health decided that imports of Egyptian potatoes were prohibited until the end of the season.

Source: **EPPO Secretariat, 1999-06.**

Additional key words: import prohibition **Computer codes:** PSDMSO, EG

99/097 First report of *Claviceps africana* in India

The ergot of sorghum, *Claviceps africana*, has recently spread to the Americas and Australia (see EPPO RS 97/031, 97/073, 97/119, 98/114). In Asia, its presence was so far only reported in Japan, Thailand and Yemen. In India, another fungus *Claviceps sorghi* is present and considered as endemic. The anamorph of *C. sorghi* (*Sphacelia sorghi*) is morphologically similar to that of *C. africana*. 5 isolates of sorghum ergot from several locations in southern India had previously been identified as *C. sorghi*. But recently, further studies have demonstrated that 2 of them (from Andhra Pradesh and Madhya Pradesh) were in fact *C. africana*. This finding suggests that the data published in recent years in India on sorghum ergot disease (thought to be caused only by *C. sorghi*) may have to be revised, as well as the future strategies to control the disease. This is the first report of *C. africana* in India.

Source: Bogo, A.; Mantle, P.G. (1999) *Claviceps africana* discovered in India. **Plant Disease, 83(1), p 79.**

Additional key words: new record **Computer codes:** CLAVAF, IN

99/098 *Bactrocera papayae* and *Bactrocera philippinensis* declared eradicated from mainland Australia

The NPPO of Australia has recently informed the EPPO Secretariat of the eradication of *Bactrocera papayae* and *Bactrocera philippinensis* (both EPPO A1 quarantine pests).

Papaya fruit fly (*Bactrocera papayae*) and Philippines fruit fly (*B. philippinensis*) were officially declared eradicated from mainland Australia on 30 April 1999 and 31 May 1999 respectively. Mainland Australia (including Tasmania) is now free from all economically important fruit fly species of the oriental fruit fly (*B. dorsalis*) complex. Australia anticipates that quarantine restrictions relating to the presence of these fruit fly species on mainland Australia will be immediately withdrawn.

The papaya fruit fly eradication program began in November 1995 following the detection of specimens near Cairns, North Queensland, in October 1995 (see EPPO RS 96/044). Further *B. papayae* specimens were found in the wider Cairns region leading to the establishment of a 70,000 km^2 pest quarantine area. *B. papayae* was officially declared eradicated on 30 April 1999 after more than 20 months with no detections.

The *B. philippinensis* eradication program began in November 1997, immediately following the detection of specimens in suburban Darwin, Northern Territory, on 20 November 1997. A 50 km radius pest quarantine area was declared around the site of the original detection. *B. philippinensis* was officially declared eradicated on 31 May 1999 after more than 17 months with no detections.

Australia has implemented a surveillance system to detect possible introduction of exotic fruit fly species. This surveillance system will ensure that mainland Australia (including Tasmania) remains free of exotic fruit fly species.

Source: **NPPO of Australia, 1999-06.**

Additional key words: eradication **Computer codes:** BCTRPW, BCTRPH, AU

99/099 First record of *Prostephanus truncatus* in South Africa

In May 1999, *Prostephanus truncatus* (large grain borer) was reported for the first time from South Africa. As part of a regular monitoring programme, 75 pheromone traps were placed along the borderline of South Africa. Three specimens were trapped (in 3 traps) in an isolated area on the north-eastern borders of the Kruger National Park adjacent to Zimbabwe and Mozambique. Measures are being taken to prevent any further spread of this pest. *P. truncatus* attacks a wide range of stored products (seeds, grains, meal, bran, wood etc.). It is particularly damaging to maize cobs which can be attacked in the field or after harvest. *P. truncatus* originates from Central America. It has been introduced into Tanzania in 1980, and is now spreading in Africa where it causes very serious problems on stored products. This is the first record of *Prostephanus truncatus* in South Africa.

Source: **Ministry of Agriculture of South Africa, IPPC Secretariat, 1999-05.**

Additional key words: new record **Computer codes:** PROETR, ZA

99/100 First reports of *Phoracantha semipunctata* in Canary islands (ES) and Libya

Phoracantha semipunctata (EPPO A2 quarantine pest), a eucalyptus pest, has invaded the Mediterranean Basin, probably in different phases during this century. It is recalled that *P. semipunctata* appeared in the 1940s in Israel, in the 1950s in Lebanon and Egypt, then in Turkey (1959), Morocco (1962), Tunisia (1962), Cyprus (around 1967), Italy (around 1969), Algeria (1972), Portugal (1980), Spain (1980), France (1984). The presence of the pest was recorded in 1991 in Canary islands, ES (Gran Canaria, Tenerife) and recently in another island (Gomera) and in Libya (1998). The EPPO Secretariat had previously no data on the occurrence of *P. semipunctata* in the Canary islands, and the finding in Libya is a new country record.

Source: Schedl, W. (1999) [Invasion of the Eucalyptus borer, *Phoracantha semipunctata* (F.) in the Mediterranean Basin and the Canary islands (Coleoptera: Cerambycidae)].
Anzeiger für Schädlingskunde, 72(2), 25-56.

Additional key words: detailed record, new record **Computer codes:** PHOASE, ES, LY

99/101 *Anoplophora chinensis* found under glasshouse in Georgia (US)

In April 1999, adults of *Anoplophora chinensis* (EPPO A1 quarantine pest) were found in a glasshouse in Athens, Georgia, USA. The pest was found on *Lagerstroemia indica* bonsais imported from China. In USA, *A. chinensis* was previously only reported to occur in Hawaii.

Source: USDA-APHIS (1999) Citrus longhorned beetle found in the United States. University of Florida Pest Alert WWW site, 1999-04-30 http://extlab1.entnem.ufl.edu/pestalert/clb.htm

Additional key words: new detailed record **Computer codes:** ANOLCN, US

99/102 *Bursaphelenchus xylophilus* continues to spread in China and Korea

At a conference on sustainability of pine forests in relation to pine wilt and decline, a number of different aspects of biology, control, vector relationships, distribution and diagnostics were discussed. Among them, Dr Helen Braasch recorded the following aspects of quarantine interest: In China and Korea despite intensive efforts to contain the infestation, *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) continues to spread. In China the spread is towards the north-west where it has reached a region with a mean annual temperature of 14 °C. There is a fear that the nematode could continue northwards to the Russian border where there are forests of highly susceptible species: *Pinus koraiensis* and *P. sylvestris mongolica*. In Korea, where the infection was until recently confined to the south, an infected sawmill acted as a source of spread to many other parts of the country ; it is not yet known if the nematode has reached the Democratic People's Republic of Korea.

Source: Braasch, H. (1999) Bericht über das Symposium zur Bedrohung der Kierfernwälder durch Kiefernwelke und Kiefernsterben (Tokyo, 1998-10-26/30).
Nachrichtenblatt des Deutschen Pflanzenschutzdienstes, 51(5), 134-135.

Additional key words: detailed record **Computer codes:** BURSXY, CN, KR

99/103 Phylogenetic relationships between *Bursaphelenchus* nematodes

Molecular tools (PCR-RFPL, sequence analysis of rDNA) were used in Japan to analyse the phylogenetic relationships between *Bursaphelenchus* nematodes. Isolates of *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) from: Japan (3 pathogenic isolates and 2 non-pathogenic), China (1), USA (1), Canada (4) and isolates of *B. mucronatus* from Japan (3), China (1) and France (1) were studied. Results showed a clear distinction between *B. xylophilus* and *B. mucronatus*. Among *B. xylophilus* isolates, the pathogenic Japanese isolates and the isolates from China and USA were identical. The non-pathogenic isolates from Japan were slightly distinct. The Canadian isolates of *B. xylophilus* showed more variability and appeared clearly as a separate cluster. The authors felt that this could reinforce the hypothesis of an introduction of *B. xylophilus* from USA into Japan, but further studies on a larger number of US isolates are needed. Among *B. mucronatus* isolates, a greater variability was observed and at least two distinct groups (from Asia, from Europe) could be distinguished.

Source: Iwahori, H.; Tsuda, K.; Kanzaki, N.; Izui, K.; Futai, K. (1998) PCR-RFLP and sequencing of ribosomal DNA of *Bursaphelenchus* nematodes related to pine wilt disease.
Fundamental and applied Nematology, 21(6), 655-666.

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

99/104 *Xylella fastidiosa* is the causal agent of oleander leaf scorch disease

A lethal leaf scorch disease of oleander appeared in Southern California (US) in the 1990s. It was fist found in the Palm Springs area (Riverside county). It then spread to other Californian counties (Orange, San Diego, San Bernardino) and also to Texas. *Xylella fastidiosa* (EPPO A1 quarantine pest) was strongly suspected to be the cause of this disease (see EPPO RS 97/049). Further studies have now confirmed this hypothesis. *X. fastidiosa* was detected by isolation on growing medium, ELISA and PCR in most symptomatic plants (but not in asymptomatic plants or negative controls). Mechanical inoculations of oleanders with bacterial cultures (obtained from oleanders) produced symptoms of oleander leaf scorch, and *X. fastidiosa* could then be re-isolated from these inoculated plants (thus verifying Koch's postulates). Three leafhoppers species feeding on xylem sap (*Graphocephala atropunctata*, *Homolodisca coagulata* and *H. lacerta*) were able to transmit the disease from oleander to oleander. After mechanical inoculation, no bacterium could be re-isolated from grapevine (*Vitis vinifera*), peach (*Prunus persica*), olive (*Olea europea*), *Rubus ursinus* and valley oak (*Quercus lobata*). Sequence comparison (500 bp sequence of 16S-23S rRNA spacer region) of oleander strains showed 99.2 % identity with Pierce's disease strains, 98.4% with oak leaf scorch strains, 98.6% with peach phony, plum leaf scald and almond leaf scorch strains.

Source: Purcell, A.H.; Saunders, S.R.; Hendson, M.; Grebus, M.E.; Henry, M.J. (1999) Causal role of *Xylella fastidiosa* in oleander leaf scorch disease. **Phytopathology, 89(1), 53-57.**

Additional key words: etiology, new host plant **Computer codes:** XYLEFA

99/105 First report of *Erwinia amylovora* on *Crataegus monogyna* and *Pyrus pyraster* in Bulgaria

Typical symptoms of fireblight were observed in late June 1998 on *Crataegus monogyna* and *Pyrus pyraster* in the region of Plovdiv, in Bulgaria. Symptoms on *Crataegus monogyna* included shepherd's crook shoots, necrotic flowers and fruitlets, and the presence of dried amber ooze droplets. On *Pyrus pyraster* only infected shoots were observed. The presence of *Erwinia amylovora* (EPPO A2 quarantine pest) was confirmed by cultural characteristics, biological test, serology and PCR. According to the authors, this is the first report of fire blight on *C. monogyna* and *P. pyraster* in Bulgaria. It is also recalled that in Bulgaria, over a period from 1989 to 1993, *E. amylovora* has been found on *Cydonia oblonga*, *Pyrus communis*, *Mespilus germanica* and *Malus sylvestris* (see also EPPO RS 512/06 (1991), 95/199, 98/004).

Source: Bobev, S.G.; Crepel, C.; Maes, M. (1998) First report of *Erwinia amylovora* on *Crataegus monogyna* and *Pyrus pyraster* in Bulgaria.
Plant Disease, 82(11), p 1283.

Additional key words: detailed record **Computer codes:** ERWIAM, BG

99/106 Transmission of pear decline, European stone fruit yellows and other phytoplasmas to periwinkle via dodder

Pear decline (EPPO A2 quarantine pest), European stone fruit yellows (potential EPPO A2 quarantine pest, including the A2 quarantine pest apricot chlorotic leaf roll phytoplasma), Rubus stunt, Picris echioides yellows and cotton phyllody phytoplasmas were successfully transmitted via dodder (*Cuscusta* sp.) to periwinkle (*Catharanthus roseus*). Only European stone fruit yellows had previously been transmitted to periwinkle in previous experiments. This transmission to an experimental host offers advantages for future molecular studies, as phytoplasma titres are generally higher and periwinkle provides a better source than woody hosts for phytoplasmal nucleic acids, proteins and other immunogens.

Source: Marcone, C.; Hergenhahn, F.; Ragozzino, A.; Seemüller, E; (1999) Dodder transmission of pear decline, European stone fruit yellows, Rubus stunt, Picris echioides yellows and cotton phyllody phytoplasmas to periwinkle.
Journal of Phytopathology, 147(3), 129-192.

Additional key words: transmission **Computer codes:** PRDXXX

99/107 Biology of *Hyalesthes obsoletus*, vector of grapevine bois noir phytoplasma

Hyalesthes obsoletus (Homoptera: Cixiidae) is a vector of stolbur phytoplasma and the main vector of grapevine bois noir phytoplasma. *H. obsoletus* is present around the Mediterranean Basin, it can be found from coastal areas up to an altitude of 1000 m. In France, it is essentially present south of a line going from Angers to Dijon. But it is likely to be present further north, as it occurs in Germany, and bois noir disease is observed in Alsace. *H. obsoletus* is a polyphagous species (more than 50 host plants), but grapevine is not a preferred host (adults can feed on it, but the insect cannot complete its life cycle). In France, it has been observed on *Convolvulus arvensis* and *Cardaria draba* which are common weeds in vineyards, and also on *Lavandula*. The insect's habitat is essentially non-cultivated areas (abandoned land, weeded field borders, grass cover in orchards) and fields where young plants of *Lavandula* are growing. *H. obsoletus* has one generation per year, including 5 larval stages. In summer, females lay their eggs on the stems of host plants near the soil surface. Larvae hatch and migrate into the soil, along the roots. In spring, L4 and L5 migrate towards the soil surface, and adults emerge in the soil. Adults are good flyers and they leave their host plants to explore the environment and find sexual partners. During these flights (which occur in France from June to August), insects can enter vineyards, feed on grapevine sap by making several test punctures, and on this occasion transmit bois noir phytoplasma (if they had acquired it before). Direct control of *H. obsoletus* is not envisaged, as grapevine is not a host for the insect. However, weed control (chemical and mechanical control) in the vineyards and their vicinity appears as a possibility to control the disease. Many aspects of the biology of *H. obsoletus* remain to be studied, for example the acquisition and inoculation periods, the attractiveness of grapevine cultivars to the insect, and possibilities of biological control.

Source: Sforza, R.; Boudon-Padieu, E. (1998) Le principal vecteur de la maladie du Bois noir - Faisons connaissance avec cet insecte fulguromorphe, *Hyalesthes obsoletus*, depuis le vignoble jusqu'au laboratoire.
Phytoma - La Défense des Végétaux, no. 510, 33-37.

Additional key words: biology, epidemiology **Computer codes:** HYAEOB

99/108 Epidemiological studies on grapevine bois noir in France

Epidemiological studies have been carried out in the Rhône valley in France on grapevine bois noir phytoplasma for 3 years. This grapevine yellows is caused by a stolbur type phytoplasma. Wild plants and insects present in vineyards or in their vicinity were tested by PCR, and transmission trials were also carried out in the laboratory. Many insects species (Hemiptera) were captured and tested. Results showed that bois noir phytoplasma could be detected in *Hyalesthes obsoletus* (Hemiptera: Cixiidae), and to a much lesser extent in *Mocydia crocea* and *Euscelis lineolatus*. The phytoplasma was not detected in the genus *Aphrodes*, *Neoaliturus* and *Psammotettix*, although this had been the case in other studies. However, successful transmission of the phytoplasma to grapevine, periwinkle (*Catharanthus roseus*) and thorn-apple (*Datura stramonium*) could only be obtained with *Hyalesthes obsoletus.* In addition, 34 wild plant species were monitored for the presence of the phytoplasma. It was detected in *Cardaria draba*, *Convolvulus arvensis*, *Prunus avium*, *P. domestica*, *Syringa vulgaris*, *Ficus carica* and *Ulmus*. Grapevine is a poor host of *H. obsoletus* which feeds on it only occasionally. It has also been confirmed that *Convolvulus arvensis* and *Cardaria draba* are hosts plants of the insect vector of grapevine bois noir phytoplasma.

Source: Sforza, R.; Clair, D.; Daire, X.; Larrue, J.; Boudon-Padieu, E. (1998) The role of *Hyalesthes obsoletus* (Hemiptera: Cixiidae) in the occurrence of Bois Noir of grapevines in France.
Journal of Phytopathology, 146(11-12), 549-556.

Additional key words: epidemiology **Computer codes:** GVBNXX

99/109 Genetic diversity in coconut lethal yellow disease phytoplasmas in East Africa

Lethal diseases of palms occur in several parts of the world. Palm lethal yellowing phytoplasma (EPPO A1 quarantine pest) occurs in the Caribbean, Mexico, Belize and Honduras. Similar phytoplasma diseases are observed in West Africa (Cameroon, Ghana, Nigeria, Togo) and in East Africa (Kenya, Mozambique, Tanzania). Similarities between diseases have led to the assumption that palm lethal yellowing in the Americas and the African lethal diseases were similar. However, important difference in epidemiology and varietal susceptibility suggested differences between pathogens on each continent and also between East and West Africa. Genetic comparisons have previously shown that phytoplasma isolates from East Africa were related but distinct from those in West Africa and the Caribbean (see EPPO RS 97/222, 94/223).

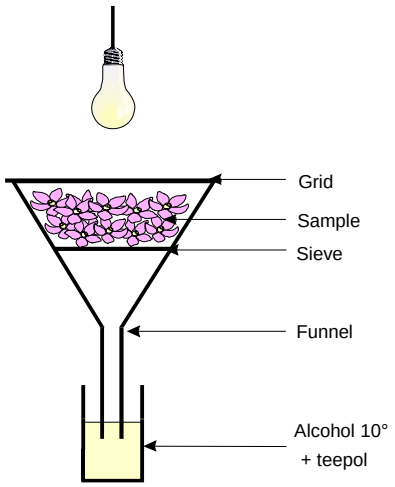
Further genetic comparison have been made between isolates from East Africa. In Tanzania, 22 million coconut trees (*Cocus nucifera*) are planted along the mainland coast and in the islands of Zanzibar, Pemba and Mafia. The lethal disease was first reported in coconut trees near Bagamoyo (region of Dar es Salaam) at the beginning of this century. The disease has caused extensive damage on the mainland for the last 30 years and now also occurs in Mafia island. However, disease incidence is not identical in all affected regions. In southern regions, it is estimated that 56% palm trees have been killed since 1965 whereas only 8.5% have been affected in northern regions. Using PCR, RFLP and rDNA sequencing, genetic comparison were made between several Tanzanian isolates from regions with low, medium and high disease incidence. Phytoplasma isolates from Kenya (neighbouring region, north of Tanzania) and from Mozambique (neighbouring region, south of Tanzania) were also studied. Phytoplasmas were detected in all diseased samples. Results showed that phytoplasma isolates from Kenya and Tanzania are similar. But they are both distinct from Mozambique isolates, the later being related to West African isolates. No distinction could be made between Tanzanian isolates despite the fact that differences are observed in disease incidence. Differences in disease severity observed in Tanzania cannot be explained by the occurrence of different pathogens, but perhaps by genetic variability in palm tree populations or different insect vectors but more studies are needed.

Source: Mpunami, A.A.; Tymon, A.; Jones, P.; Dickinson, M.J. (1999) Genetic diversity in the coconut lethal yellowing disease phytoplasmas of East Africa. **Plant Pathology, 48(1), 109-114.**

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

99/110 Import inspections on *Thrips palmi* in France during the last 3 years

Since 1996, the French NPPO has tried to identify the main pathways of entry for *Thrips palmi* (EPPO A1 quarantine pest). Visual inspections for *T. palmi* are difficult due to the small size, mobility and behaviour of the insect. Inspection techniques using the 'Berlese' device have been developed and were found particularly useful to detect thrips on flowers and leafy vegetables. Due to the heat of the lamp, insects leave the plant samples and fall into an alcohol solution. However, 8 hours are necessary and only adult thrips can be reliably identified.



Berlese device from Bayart *et al.*, 1999.

The results of import inspections on *T. palmi* made in the airports of Paris during the last 3 years are presented below.

Plant	Type of commodity	Origin	Nb of inspections with *T. palmi* adults identified	Nb inspections with *T. palmi* observed	Total nb of inspections made by pathway
Orchidaceae	Cut flowers	Thailand	41	47	284
		Singapore	6	14	147
		Malaysia	1	5	112
	Plants with flowers	Thailand	1	2	11
Solanum melongena	Vegetable	Mauritius	6	13	34
		Dominican Republic	2	6	14
		Thailand	3	83	230
Solanum torvum	Vegetable	Thailand	1	4	23
Cucumis sativus	Vegetable	Mauritius	1	0	1
Cucurbita maxima	Leaves	Mauritius	8	6	16
Sechium edule	Leaves	Mauritius	1	7	48
Momordica charantia	Vegetable	Dominican Republic	2	10	12
		Thailand	4	40	88
Amaranthus viridus	Leaves	Mauritius	3	5	8
Melia spp.	Leaves	Thailand	1	6	17
Coriandrum spp.	Leaves	Thailand	5	1	6
Unknown	Leaves	Thailand	1	-	-

(Table from Bayart *et al.*, 1999)

The main pathways identified are orchid cut flowers from Southeast Asia, fruits and vegetables (mainly Solanaceae and Cucurbitaceae) from Thailand, Mauritius and Dominican Republic. Considering the risks presented by such a polyphagous and harmful species, and as numerous interceptions of cut orchid flowers were made not only in France but also in many other European countries, the EU took a decision in February 1998 stating that orchids flowers from Thailand must have been produced at a place of production found free from *T. palmi* during the last 3 months or fumigated, and consignments must be accompanied by a phytosanitary certificate.

Source: Bayart, J.D.; Reynaud, P.; Lemmonnier, R.; Cazaban, P. (1999) Eviter l'importation en Ile-de-France de *Thrips palmi*. Bilan de trois années de contrôle.
Phytoma - La Défense des Végétaux, no. 514, 53-55.

98/109/EC Commission decision of 2 February 1998 authorizing Member States temporarily to take emergency measures against the dissemination of *Thrips palmi* as regard Thailand.
Official Journal L 027, 03/02/1998 p47-48
Internet: htpp://europa.eu.int/euro-lex/en/lif/dat/1998/en_398D0109.html

Additional key words: phytosanitary inspections **Computer codes:** THRIPL

99/111 *Monosporascus cannonballus* causes a serious disease of melons and watermelons

During the last decades, a group of soilborne diseases of melons and watermelons has become prevalent and causes serious economic losses in various parts of the world. Among responsible fungal pathogens, the ascomycete *Monosporascus cannonballus* is often reported. Another species *Monosporascus eutypoides* has also been described but it is now proposed to consider them as synonyms. Symptoms of the disease are characterized by yellowing, death of the leaves, decline of the vines as plants approach maturity. A rapid collapse of the crop is typically observed just before harvest. Affected plants show root lesions, loss of secondary and tertiary roots, and in wet conditions, secondary root rot. Little information is available on the biology and epidemiology of the fungus. Ascospores probably ensure long-term survival of *M. cannonballus* in the soil. They are released in large numbers into the soil, but as germination is rarely seen, their role in the disease cycle is unknown. The anamorph stage of *M. cannonballus* is unknown.

Host plants
The main host plants are melons (*Cucurbita melo*) and watermelons (*Citrullus lanatus*). In Japan, *M. cannonballus* has also been reported in the field on *Lagenaria siceracia* (bottle gourd). Glasshouse experiments have shown that other cucurbits were susceptible (e.g. cucumber, squash, pumpkin). There are reports of the fungus on *Achyranthes aspera*, *Iris*, *Triticum*, *Sesamum indicum*, *Trifolium pratense* but pathogenicity has not been demonstrated.

Geographical distribution:
M. cannonballus was first described in 1974 from necrotic melon roots from Arizona (US). It was then reported from Japan, other parts of USA (California, Texas), Israel, Tunisia, Taiwan, Mexico. In Spain, a decline of melons ('colapso', 'muerte subita') has occurred in the Valencia region for the last 10 years but there is disagreement concerning the cause of the disease. It has been attributed to *Acremonium* sp. by some scientists (see EPPO RS 93/083) or to *M. cannonballus* by others. The latest reports are from Central America (Honduras, Guatemala), Mexico, Saudi Arabia and from Italy, where the fungus was found in 1997 on watermelons cultivated in the province of Bologna (Emilia-Romagna). This soilborne fungi appears to be adapted to hot, semi-arid climate with soils that tend to be saline and alkaline.

EPPO region: Israel (as *M. eutypoides*, 1983), Italy (Gennari *et al*., 1999), Libya (as *M. eutypoides*, 1978), Spain (Lobo Ruano, 1991), Tunisia (Martyn *et al*., 1994)
Asia: India, Iran (as *M. eutypoides)*, Japan (Watanabe, 1979), Pakistan (as *M. eutypoides*), Saudi Arabia (Karlatti *et al*., 1997), Taiwan (Tsay & Borkay, 1995)
North America: Mexico (Martyn *et al*., 1996), USA (Arizona, California, Texas).
Central America: Guatemala (Bruton & Miller, 1997a), Honduras (Bruton & Miller, 1997b)

In Texas (US), losses can fluctuate from 10 to 25% from year to year, but in some fields up to 100% loss has been seen. Similar observations are made in southern Spain and Israel. Control of the disease is difficult. So far all tested varieties of melons and watermelons are susceptible. As the fungus shows thermophilic properties, solarization is not expected to provide good results. Soil fumigation can be used against it. The reasons for the sudden appearance and increasing incidence of *M. cannonballus* on melon and watermelon crops in many parts of the world is not known. Martyn and Miller (1996) suggest that this may be attributed to the availability of reliable detection and identification methods (i.e. molecular tools such as PCR), and particularly to the drastic changes in crop cultivation which took place in the 1980s (e.g. use of plastic mulch, drip irrigation and hybrid cultivars).

Source: Bruton, B.D.; Miller, M.E. (1997a) Occurrence of vine decline diseases of muskmelon in Guatemala. **Plant Disease, 81(6), p 694.**

Bruton, B.D.; Miller, M.E. (1997b) Occurrence of vine decline diseases of melons in Honduras. **Plant Disease, 81(6), p 696.**

CABI (1991) IMI Descriptions of Fungi and Bacteria, nos 1035 & 1036 (*Monosporascus cannonballus* & *M. eutypoides*]. CABI, Wallingford, UK.

Gennari, S.; Mirotti, A.; Sportelli, M. (1999) [*Monosporascus cannonballus* on watermelon]. **Informatore Fitopatologico, no. 1/2, 38-40.**

Karlatti, R.S.; Abdeen, F.M.; Al-Fehaid, M.S. (1997) First report of *Monosporascus cannonballus* in Saudi Arabia. **Plant Disease, 81(10), p 1215.**

Lobo Ruano, M. (1991) [Severe diseases of melons and watermelons]. **Boletin de Sanidad Vegetal - Plagas, 17(1), 133-163.**

Martyn, R.D.; Batten, J.S.; Park, Y.J.; Miller, M.E. (1996) First report of *Monosporascus* root rot/vine decline of watermelon. **Plant Disease, 80(12), p 1430.**

Martyn, R.D.; Lovic, B.R.; Maddox, D.A.; Germash, A.; Miller, M.E. (1994) First report of *Monosporascus* root rot/vine decline of watermelon in Tunisia. **Plant Disease, 78(12), p 1220.**

Martyn, R.D.; Miller, M.E. (1996) *Monosporascus* root rot and vine decline An emerging disease of melons worldwide. **Plant Disease, 80(7), 716-725.**

Tsay, J.G;; Tung, B.K. (1995) The occurrence of *Monosporascus* root rot/vine decline of muskmelon in Taiwan. **Plant Pathology Bulletin, 4(1), 25-29.**

Watanabe, T. (1979) *Monosporascus cannonballus*, an ascomycete from wilted melon roots described in Japan. **Transactions of the Mycological Society of Japan, 20(3), 312-316.**

INTERNET
South Texas Vegetable Web (pictures).
http://aggie-horticulture.tamu.edu/southtex/info/watermelon.html

University of Arizona, Extension Plant Pathology (pictures)
http://ag.arizona.edu/PLP/plpext/diseases/vegetables/melon/melonvd.htm

Texas A & M University, Department of Plant Pathology and Microbiology (pictures)
http://cygnus.tamu.edu/PLPA/projects/1/monosporascus_cannonballus.html

Data sheet on *Monosporascus cannonballus.*
http://www.extento.hawaii.edu/kbase/crop/Type/m_cann.htm

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

99/112 EPPO report on selected intercepted consignments

The EPPO Secretariat has gathered the intercepted consignment reports for 1999 received since the previous report (EPPO RS 99/091) from the following countries: Austria, Czech Republic, Denmark, Estonia, Finland, Germany, Ireland, Lithuania, Netherlands, Norway, Poland, Portugal, Switzerland, Slovenia, 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.

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It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their interception reports.

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Aleurocanthus woglumi	*Citrus hystrix*[1]	Fruit	Thailand	United Kingdom	1
Ambrosia artemisiifolia	*Helianthus annuus*	Seeds	Hungary*	Lithuania	2
	Helianthus annuus	Seeds	Hungary*	Poland	1
	Helianthus annuus	Seeds	Ukraine	Lithuania	1
	Zea mays	Stored products	Hungary*	Poland	1
	Zea mays	Stored products	Slovakia*	Poland	2
***Ambrosia* sp.**	*Helianthus annuus*	Stored products	Hungary	Poland	2
	Hordeum vulgare	Stored products	Slovakia	Poland	3
	Panicum miliaceum	Stored products	Czech Republic	Poland	1
	Zea mays	Stored products	Hungary	Poland	2
	Zea mays	Stored products	Slovakia	Poland	5
Bemisia tabaci	*Clerodendron*	Plants for planting	Israel	United Kingdom	1
	Hibiscus rosa-sinensis	Cuttings	Australia	United Kingdom	1
	Hibiscus rosa-sinensis	Pot plants	Netherlands	Poland	1
	Hygrophila angustifolia	Aquarium plants	Singapore*	United Kingdom	1
	Hygrophila polysperma	Aquarium plants	Singapore*	United Kingdom	1
	Hypericum	Cut flowers	Netherlands	Ireland	1
	Hypericum androsaemum	Cut flowers	Israel	United Kingdom	1
	Leaves	Vegetables	Ghana	United Kingdom	1
	Mandevilla	Plants for planting	Israel	United Kingdom	1
	Manihot	Vegetables	Ghana	United Kingdom	1
	Ocimum basilicum	Vegetables	Thailand	United Kingdom	4
	Solidago	Cut flowers	Israel	Ireland	6
	Solidago	Cut flowers	Israel	United Kingdom	6
	Solidago	Cut flowers	Netherlands	Ireland	1
	Solidago	Cut flowers	Spain (Canary Isl.)	United Kingdom	1
	Solidaster	Cut flowers	Netherlands	United Kingdom	1
	Trachelium	Cut flowers	Netherlands	United Kingdom	1
***Bemisia tabaci, Liriomyza sp.*(suspect *L. trifolii*)**	*Solidago*	Cut flowers	Israel	United Kingdom	1
***Bemisia tabaci, Liriomyza* sp.**	*Ocimum basilicum*	Vegetables	Cyprus	United Kingdom	1
Clavibacter michiganensis* subsp. *sepedonicus	*Solanum tuberosum*	Ware potatoes	Germany	Finland	1
	Solanum tuberosum	Ware potatoes	Poland	Estonia	1
	Solanum tuberosum	Ware potatoes	Poland	Lithuania	1
Dégénérescence infectieuse?	*Vitis vinifera*	Plants for planting	Italy	Switzerland	1
Ephestia cautella, Stegobium paniceum	*Coffea arabica*	Stored products	Papua New Guinea	Poland	1

[1] Prohibited commodity

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Frankliniella occidentalis	Ornamentals	Cut flowers	Netherlands	Lithuania	34
Globodera rostochiensis	*Alnus incana*	Plants for planting	Poland	Germany	1
	Rhododendron indicum	Plants for planting	Poland	Lithuania	1
	Solanum tuberosum	Ware potatoes	Italy	Czech Republic	4
Helicoverpa zea	*Zea mays*	Seeds	Puerto Rico	Germany	1
Kirramyces epicoccoides	*Eucalyptus*	Cuttings	South Africa	United Kingdom	1
Leptinotarsa decemlineata	*Lactuca sativa*	Vegetables	Portugal	United Kingdom	1
	Petroselinum crispum	Vegetables	Italy	United Kingdom	1
	Solanum tuberosum	Ware potatoes	Spain	United Kingdom	3
Liriomyza huidobrensis	*Carthamus*	Cut flowers	Netherlands	Ireland	1
	Dianthus	Plants for planting	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Netherlands	Ireland	1
	Passiflora	Plants for planting	Netherlands	United Kingdom	1
	Spinacia	Vegetables	Cyprus	United Kingdom	1
Liriomyza (*suspect *L. huidobrensis)	*Amaranthus*	Cut flowers	Netherlands	United Kingdom	1
	Carthamus	Cut flowers	Kenya	United Kingdom	1
	Carthamus	Cut flowers	Zimbabwe	United Kingdom	1
	Eustoma	Cut flowers	(Netherlands)	United Kingdom	1
	Gypsophila	Cut flowers	Israel	United Kingdom	1
	Gypsophila	Cut flowers	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Spain	United Kingdom	4
	Gypsophila	Cut flowers	Spain (Canary Isl.)	United Kingdom	1
Liriomyza trifolii	*Gerbera*	Pot plants	Belgium	United Kingdom	2
	Gerbera	Pot plants	Netherlands	United Kingdom	2
Liriomyza (*suspect *L. trifolii)	*Gerbera*	Pot plants	Belgium	United Kingdom	1
	Gerbera	Pot plants	Netherlands	United Kingdom	2
	Gypsophila	Cut flowers	Israel	United Kingdom	1
	Gypsophila	Cut flowers	Netherlands	United Kingdom	1
	Ocimum basilicum	Vegetables	Thailand	United Kingdom	1
Liriomyza sp. (*suspect *L. huidobrensis* or *L. trifolii)	*Bupleurum*	Cut flowers	Israel	United Kingdom	1
Liriomyza sp.(*suspect *L. trifolii* or *L. sativae)	*Ocimum basilicum*	Vegetables	Cyprus	United Kingdom	1
***Liriomyza* sp.**	*Gypsophila*	Cut flowers	Israel	Germany	3
***Liriomyza* sp.**	*Ocimum basilicum*	Vegetables	Thailand	Denmark	2
Meloidogyne chitwoodi	*Solanum tuberosum*	Ware potatoes	Netherlands	United Kingdom	1
***Meloidogyne* sp.**	*Clematis*	Plants for planting	Netherlands	Norway	1
	Ravenea	Plants for planting	USA	Germany	1
	Rosa	Plants for planting	Netherlands	Poland	1
Nematodes	*Phoenix*	Plants for planting	USA	Germany	1

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Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Nysius thymi, Metopolophium dirhodum, Frankliniella occidentalis, F. schultzei, Thrips tabaci, Haplothrips vuilleti	*Rosa*	Cut flowers	South Africa	Portugal	1
Pantoea stewartii* pv. *stewartii	*Zea mays*	Seeds	(Hungary)	Austria	7
	Zea mays	Seeds	(Romania)	Austria	2
Ralstonia solanacearum	*Solanum tuberosum*	Ware potatoes	Egypt	Germany	10
Rhizopertha dominica	*Avena sativa*	Stored products	Slovakia	Poland	1
	Hordeum vulgare	Stored products	Czech Republic	Poland	2
	Hordeum vulgare	Stored products	Slovakia	Poland	2
	Panicum miliaceum	Stored products	Ukraine	Poland	1
	Triticum aestivum	Stored products	Slovakia	Poland	1
***Rhizopertha dominica, Sitophilus oryzae, Tribolium* sp.**	*Hordeum vulgare*	Stored products	Slovakia	Poland	1
***Rhizopertha dominica, Tribolium* sp.**	*Hordeum vulgare*	Stored products	Slovakia	Poland	1
***Rhizopertha* sp., *Tribolium* sp., *Cryptolestes* sp.**	*Hordeum vulgare*	Stored products	Czech Republic	Poland	1
Sitophilus oryzae	*Hordeum vulgare*	Stored products	Czech Republic	Poland	3
	Hordeum vulgare	Stored products	Slovakia	Poland	6
	Zea mays	Stored products	Hungary	Poland	1
Sitophilus oryzae, Rhizopertha dominica	*Hordeum vulgare*	Stored products	Slovakia	Poland	1
***Sitophilus* sp.**	*Triticum*	Stored products	Hungary	Slovenia	3
Sitophilus* sp., *Cryptolestes ferrugineus	*Triticum*	Stored products	Hungary	Slovenia	1
***Sitophilus* sp., *Tribolium* sp.**	*Hordeum vulgare*	Stored products	Hungary	Slovenia	1
***Spodoptera* sp.**	*Zea mays*	Seeds	Puerto Rico	Germany	1
Spoladea recurvalis	*Colocasia*	Vegetables	Bangladesh	United Kingdom	1
Thrips palmi	*Momordica charantia*	Vegetables	Dominican Rep.	United Kingdom	5
Thrips sp. (*suspect *T. palmi)	*Momordica charantia*	Vegetables	Dominican Rep.	United Kingdom	1
Thripidae	*Dianthus*	Cut flowers	Israel	Germany	1
***Thrips* sp.**	*Dendrobium*	Cut flowers	Zimbabwe	Germany	1
***Tribolium* sp.**	*Avena sativa*	Stored products	Slovakia	Poland	1
	Coffea	Stored products	(Netherlands)	Poland	1
	Hordeum vulgare	Stored products	Czech Republic	Poland	2
	Hordeum vulgare	Stored products	Slovakia	Poland	7
	Secale cereale	Stored products	Czech Republic	Poland	2

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
***Tribolium* sp.** (cont.)	*Triticum*	Stored products	Czech Republic	Poland	3
	Zea mays	Stored products	Hungary	Poland	2
	Zea mays	Stored products	Slovakia	Poland	2
Tribolium* sp., *Sitophilus oryzae	*Hordeum vulgare*	Stored products	Slovakia	Poland	1
Trogoderma granarium	*Hordeum vulgare*	Stored products	Slovakia	Poland	8
	Zea mays	Stored products	Slovakia	Poland	1
Trogoderma granarium, Sitophilus oryzae	*Hordeum vulgare*	Stored products	Slovakia	Poland	1
Uromyces clignyi	*Cymbopogon citratus*	Plants for planting	Israel	United Kingdom	1

- **Fruit flies**

Pest	Consignment	Country of origin	C. of destination	nb
Ceratitis anonae	*Chrysophyllum*	Nigeria	United Kingdom	1
Ceratitis capitata	*Citrus sinensis*	Spain	Poland	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
***Tetropium* sp.**	*Larix sibirica*	Wood	Russia	Austria	1

- **Bonsais**

United Kingdom intercepted 2 consignments of bonsai (*Serissa* and *Ulmus*) from China and 1 consignment from Israel (*Pistacia*) which were respectively infected by: *Helicotylenchus dihystera*, *Stegophora ulmea* and Psyllidae *(Agonoscena targionii* was suspected*)*

Source: EPPO Secretariat, 1999-06.

99/113 Advanced short course on : 'Use of BIO-PCR for detecting seed-borne bacteria' (Ankara, Turkey, 1999-11-17/24)

An advanced short course on : 'Use of BIO-PCR for detecting seed-borne bacteria' will take place in Ankara, Turkey, on 1999-11-17/24. The course is organized by the Plant Protection Central Research Institute of Ankara with the collaboration of USDA, ARS, NAA, Foreign Diseases and Weed Science Research Unit, Fort Detrick (USA) and Campbell Seed Technology, Davis (USA). The course will be hosted at the Campus of Agriculture in Ankara. The objective of the course is to provide and update knowledge of the major seed-borne bacterial diseases of important vegetable crops (potato, bean, tomato) in the Mediterranean region and to teach the use of BIO-PCR as a sensitive and routine method for detecting plant pathogenic bacteria in seeds (e.g. *Clavibacter michiganensis* subsp. *michiganensis*, *C. michiganensis* subsp. *sepedonicus*, *Ralstonia solanacearum*, etc.). The course is intended for professionals with a university degree, working with diagnosis and seed testing of bacterial pathogens. The course will include lectures and laboratory work. It will be given in English. Registration fees are 350 USD.

Applications (with detailed curriculum vitae stating: degree, diplomas, experience, professional activities, language knowledge and reasons for applying to the course) must be submitted before **6 August 1999**.

For more information contact:
Meriç ÖZAKMAN
Plant protection Central Research Institute
P.O. Box 49, 06172 Yenimahalle,
Ankara
Turkey
Tel: 90(312) 344 5994
Fax: 90(312) 315 1531
E-mail: meric_ozakman@ankara.tagem.gov.tf

Source: **EPPO Secretariat, 1999-06.**

Additional key words: training course

99/114 1st International Workshop on grapevine trunk diseases - Esca (black measles) and grapevine declines (Italy, 1999-10-01/02)

The 1st International Workshop on grapevine trunk diseases - Esca (black measles) and grapevine declines will take place in Italy (in Toscana) on 1999-10-01/02. This Workshop is jointly organized by the Mediterranean Phytopathological Union and the International Council on Grapevine Trunk Diseases. The provisional programme is the following (indicating only invited lectures, but more papers will be presented):

Session 1. Esca disease

Invited lectures L. Chiarappa - Esca (black measles) disease of grapevine. An overview
P. Larignon and L. Mugnai - Recent progress of research on esca disease of grapevine

Session 2. Young grapevine decline

Invited lectures S. Ferreira - An overview on declines
D. Gubler - The dimension of an epidemy: the Californian case
L. Morton - Viticulture and grapevine declines

Session 3. Etiology and taxonomy

Invited lectures A. Graniti and G. Surico - Esca disease: a disease complex or a complex of diseases?
M. Fischer - Grapevine wood decay and lignicolous basidiomycetes
P. Crous and W. Gams - Taxonomic aspects of *Phaeoacremonium* and related genera

Session 4. Epidemiology and control

Invited lectures P. Larignon - Biology of *Phaeoacremonium*
S. Di Marco - Control of esca disease
S. Ferreira - Eradication of black goo from nursery material

Contact:

MPU
Laura Mugnai
Istituto di Patologia e Zoologia forestale e agraria
Piazzale delle Cascine, 28
50144 Firenze, Italy
Tel: +39 055 3288377 - **Fax**: +39 055 354786
E-mail: laura@ipaf.fi.cnr.it

ICGTD/IAS
Debbi Dellinger
1765 Fort Valley Rd.
Fort Valley
VA 22652, USA
Fax: +1 540 933 6987
E-mail: fortvin@shentel.net

INTERNET: http://wineinfonet.com/blackgoo

Source: EPPO Secretariat, 1996-06.

Additional key words: conference