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2000/165 Outbreak of *Clavibacter michiganensis* subsp. *sepedonicus* in the Netherlands

In the Netherlands, during the 2000 growing-season, *Clavibacter michiganensis* subsp. *sepedonicus* (EPPO A2 quarantine pest - causal agent of potato ring rot) has been found in ware potatoes (*Solanum tuberosum* cv. Première). It can be recalled that an isolated finding had been reported in 1999 (see EPPO RS 99/056). The infection was discovered following the finding of suspect symptoms in the field in mid-July 2000 and was confirmed by the end of September by laboratory testing using the official EU method (EU Council Directive 93/85/EEC). On the farm concerned, 2 fields were planted with seed potatoes cv. Première originating from the same lot. Both crops were found to be infested with ring rot. All other lots of this farm were tested for ring rot and found free. 3 sister lots of the infested lot were grown on other farms in the Netherlands. One of these lots is confirmed to be infected and the 2 other lots are still under investigation. From the results obtained so far, it can be concluded that these 2 sister lots are suspected to be infected with ring rot. The origin of the infection is still under investigation. All necessary measures are imposed on crops, fields and farms concerned to prevent any further spread and to eradicate the disease, according to the EU Council Directive on the control of potato ring rot (93/85/EEC).

It is noted that the ware potato crops, in which ring rot has been found, were grown from seed potatoes having the same origin within the Netherlands. This is the first time that a clonal relationship is identified in the occurrence of ring rot in the Netherlands. Since 1992, surveys for ring rot are conducted in the Netherlands. The results of these surveys and the risk of introduction were evaluated yearly and served as a basis for adjusting the intensity of the survey. This has resulted in a gradual increase of the survey intensity, which was increased even more for the 2000 harvest due to the outbreak reported here. The situation *of C. michiganensis* subsp. *sepedonicus* in the Netherlands can be described as: **Present: only at a few locations, under eradication.**

Source: **NPPO of the Netherlands, 2000-10.**

Additional key words: outbreak **Computer codes:** CORBSE, NL

2000/166 Identification of *Liriomyza sativae* on imports from Israel

In 1999, six consignments of basil (*Ocimum basilicum*) from Israel had been intercepted by France because of the presence of *Liriomyza sativae* (EPPO A1 quarantine pest) (see EPPO RS 99/164, 99/183). In 1999, a survey was carried out in Israel and specimens were sent to the Natural History Museum in London (GB) for confirmation. The specimens were identified as being *L. bryoniae* (EPPO RS 2000/001). In 2000, leafminer specimens intercepted by France on *Ocimum basilicum* from Israel were sent to Dr J.C. Deeming of the National Museums and Galleries of Wales, Cardiff (GB) who identified them as being *L. sativae*.

Source: **NPPO of France, 2000-11.**

Additional key words: interception **Computer codes:** LIRISA, IL

2000/167 *Synchytrium endobioticum* found on Prince Edward Island, Canada

Synchytrium endobioticum (causing potato wart disease - EPPO A2 quarantine pest) was found in one farm on Prince Edward Island, Canada. Until now, the disease only occurred in Newfoundland and Labrador where phytosanitary measures have been applied since 1912. The presence of *S. endobioticum* in a single field in the New Annan area was confirmed in October 2000. So far, the disease appears to be confined to 0.4 ha in a corner of a 24 ha field. Measures have immediately been applied to prevent any further spread. To determine the extent of the disease, 400 soil samples are being analysed from the infested field and surrounding fields. So far, the situation of *S. endobioticum* on Prince Edward Island can be described as: **Present, only in one field**.

Source: INTERNET
Canadian Food Inspection Agency Fact Sheet. Potato wart found in P.E.I.
www.cfia-acia.agr.ca/english/plaveg/potmop/peiipee.shtml

ProMED-mail postings:
Potato wart disease - Canada (Prince Edward Island). 2000-10-27
www.promedmail.org

Additional key words: detailed record **Computer codes:** SYNCEN, CA

2000/168 Eradication of tomato yellow leaf curl begomovirus in France

In EPPO RS 2000/094, it was reported that tomato yellow leaf curl begomovirus (EPPO A2 quarantine pest) had been found for the first time in the south of France (Gard département) during summer 1999. The virus was found in a very limited number of tomato plants, on three plots. Young plants had been imported from Spain. Eradication measures were immediately taken. A survey programme was carried out during the 2000 growing-season. Wild plants growing near the previously infected plots were tested. In the same area, tomato crops were intensively tested. In the main tomato-growing regions of France, crops were randomly tested. In spring and summer 2000, the insect vector *Bemisia tabaci* (EPPO A2 quarantine pest) found in the vicinity of the previously infested plots was also tested for the presence of the virus. Results of this survey showed that the virus was not detected in host plants nor in the insect vector. The French NPPO concluded that tomato yellow leaf curl begomovirus could be considered as eradicated in France. The situation of this virus in France can be described as: **Absent: eradicated, confirmed by survey**.

Source: **NPPO of France, 2000-11.**

Additional key words: eradication **Computer codes:** TMYLCX, FR

2000/169 First report of *Mycosphaerella dearnessii* in Italy

Mycosphaerella dearnessii (EPPO A2 quarantine pest) was found on *Pinus mugo* in a Botanical Garden in Gardone (Brescia) on the western side of Garda Lake in north-eastern Italy. Symptoms were first noticed in spring 1997. Two years later, all *P. mugo* planted in the Botanical Garden (12 trees, 50-years old) showed extensive necrosis and crown defoliation. This is the first report of *M. dearnessii* in Italy. The situation of *M. dearnessii* in Italy can be described as: **Present: only near Brescia (Lombardia)**.

Source: La Porta, N.; Capretti, P. (2000) *Mycosphaerella dearnessii*, a needle-cast pathogen on mountain pine (*Pinus mugo*) in Italy.
Plant Disease, 84(8), p 922.

Additional key words: new record **Computer codes:** SCIRAC, IT

2000/170 *Globodera pallida* found in Malta

In Malta, during a recent soil survey for nematode pests carried out by the Ministry of Agriculture and Fisheries, *Globodera pallida* (EPPO A2 quarantine pest) was positively identified (ELISA test) in one field. Although *Globodera rostochiensis* had been identified in the past in Malta, *G. pallida* had never been identified in Malta before. It is noted that although *G. rostochiensis* had been found in Malta for a long time, it has never constituted a major concern as there was never a large build-up of nematode populations in the soil. Apparently, Malta stands on the borderline for the survival of potato cyst nematodes. The hot summer temperatures seem to control the numbers of these harmful organisms. The situation of *G. pallida* in Malta can be described as: **Present: only in one field**.

Source: **NPPO of Malta, 2000-11.**

Additional key words: new record **Computer codes:** HETDPA, MT

2000/171 Situation of several quarantine pests in Germany in 1999 and 2000

The NPPO of Germany has recently informed the EPPO Secretariat of the following:

In December 1999, *Gynaikothrips uzeli* was found in Baden-Württemberg in a glasshouse of a Botanical Garden. This unusual pest was found on *Ficus benjamina*. Plants showed strong leaf galling. Abamectin treatments were applied and the thrips were no longer found. It is stressed that it was difficult to carry out a pest risk analysis on *G. uzeli*, as very little information was available from the literature.

Mycosphaerella dearnessii (EPPO A2 quarantine pest) was observed in Bayern on one *Pinus mugo* tree naturally growing in an upland moor area. In Germany, *M. dearnessii* had first been reported from Bayern in 1995 (see EPPO RS 95/239). The presence of the fungus was determined on samples of needles and young shoots in the laboratory. Due to difficult soil conditions, it was not possible to examine other trees in this moor area but further work will continue. **Present: only in Bayern.**

Pepino mosaic potexvirus (EPPO Alert List) was found in Thüringen on tomatoes grown under glass for fruit production in one place of production. Fruit symptoms occurred on *Lycopersicon esculentum* cv. Clarence. Leaf symptoms were observed on cvs Starfighter and Tradiro, without any impact on yield. The presence of the virus was detected serologically, and even symptomless samples had high virus concentrations. Measures were taken on the whole place of production (10 ha): disinfection and burning of tomato plants. Tomato plants

had originally been imported from the Netherlands. **Present: only in some areas of one state (Thüringen) in protected cultivation.**

Plum pox potyvirus (EPPO A2 quarantine pest) was found in June 2000 in Thüringen, a state which was previously free from the disease. It was found in a nursery, during a routine inspection for the issuance of plant passport, on 2000 plants (*Prunus domestica*) in containers which had previously been imported from Hungary. Plum pox potyvirus was detected on the basis of symptoms and its presence was confirmed by ELISA tests. No other symptoms were observed in the nursery and its surroundings. All infected plants were destroyed. It is assumed that this finding is connected to the import of already infected plants. **In Germany, plum pox potyvirus is present in many areas where host crops are grown.**

In August 1999, *Spodoptera frugiperda* (EPPO A1 quarantine pest) was found in Baden-Württemberg on sweet maize plants grown in a nursery (3 ha). There were clear evidence of larval feeding. In September 1999, 40 infected plants were found. Larvae were collected and destroyed. Because of the climatic conditions, it appears unlikely that any further spread occurred. Maize cobs had been imported from USA and were originally intended for fresh consumption. The production site is under quarantine and further observations will be made to verify the absence of the pest. **Present: only in one place of production in Baden-Württemberg, under eradication.**

Source: **NPPO of Germany, 2000-10.**

Additional key words: detailed records, new record **Computer codes:** LAPHFR, PLPXXX, PZMXXX, SCIRAC, DE

2000/172 First report of *Aleurodicus dispersus* in Mauritius

In August 2000, *Aleurodicus dispersus* (EPPO Alert List) has been identified in Mauritius. It occured only in the Northern and Eastern parts of the island. The pest has been observed on a wide range of plants (ornamentals, fruits and vegetables). The sudden appearance of *A. dispersus* in great numbers is considered as an indication of a fairly recent introduction. This is the first report of *A. dispersus* in Mauritius. The situation of *A. dispersus* in Mauritius can be described as: **Present: only in the north and east part**.

Source: Ganeshan, S. (2000) Global news: Mauritius - First occurrence of : *Aleurodicus dispersus* (Russell).
EWSN Newsletter, no.6, p 4.

Additional key words: new record **Computer codes:** ALEDDI, MU

2000/173 Whitefly-transmitted viruses and whitefly species in Islas Canarias, Spain

Samples of whitefly and symptomatic plant material (whitefly-transmitted viruses) collected from Islas Canarias, Spain (Tenerife, Gran Canaria and La Gomera) were studied by the participants of a EWSN (European Whitefly Studies Network) workshop. The results of this study were the following:

- No whitefly-transmitted viruses were found on La Gomera.
- Tomato chlorosis crinivirus (EPPO Alert List) was found for the first time on Tenerife and Gran Canaria.
- Tomato yellow leaf curl begomovirus (EPPO A2 quarantine pest) was found on Tenerife (TYLCV-Is) and in Gran Canaria (TYLCV-Sar). On both islands tomato plants were infected by tomato yellow leaf curl begomovirus and tomato chlorosis crinivirus.
- Cucurbit yellow stunting disorder (EPPO Alert List) was also reported for the first time on Tenerife
- The following whitefly species were found on the islands: *Aleurodicus dispersus* (EPPO Alert List), *Aleurothrixus floccosus*, *Bemisia afer*, *Bemisia tabaci* (biotype B and Q – EPPO A2 quarantine pest), *Lecanoideus floccissimus* (EPPO Alert List), *Trialeurodes ricini** (EPPO Alert List), *Trialeurodes vaporariorum.*

* New record according to the EPPO Secretariat.

Source: Anonymous (2000) Canary Islands results.
EWSN Newsletter, no. 3, p 2.

Additional key words: new records

Computer codes: ALEDDI, BEMITA, KUYSXX, LECOFL, TMCXXX, TMYLCX, TRIARI, ES

2000/174 *Cameraria ohridella* continues to spread in Europe

The EPPO Secretariat has browsed again through the literature and Internet and found the following new data concerning *Cameraria ohridella* (EPPO Alert list). In addition, the French NPPO informed the EPPO Secretariat that the horse chestnut leafminer has been found in France.

In Belgium, *C. ohridella* was found in Brussels in July 2000 on horse chestnut (*Aesculus hippocastanum*). Damage has also been observed on maple (*Acer platanoides*) (Web site of Bruxelles et Environnement).

In France, *C. ohridella* was found in 2000 in the eastern part (Alsace, Lorraine and Franche Comté regions), in Ile de France region (Yvelines département) and in Rhône Alpes region (Rhône département).

In 1999, the presence of *C. ohridella* on horse chestnut was reported in the Netherlands (Stiger & de Haas, 1999).

C. ohridella was reported for the first time in Poland in 1998 on horse chestnut, in the Wroclaw district, southern Poland (Labanowski & Soika, 1998).

The recent presence of *C. ohridella* in Switzerland is mentioned by Skuhravy (1999). It is also noted that *C. ohridella* occurs in Bosnia & Herzegovina and Yugoslavia (Serbia), but these are not recent findings.

A map displayed on the web site of the Institute of Organic Chemistry and Biochemistry, Department of Natural Products, Prague (CZ), shows that *C. ohridella* occurs in Albania, Bulgaria and Romania.

Concerning host plants, *C. ohridella* can also develop on *Acer pseudoplatanus* and *A. platanoides* (Gregor *et al*., 1998).

Source: Gregor, F.; Lastuvka, Z.; Mrkva, R. (1998) [Horse chestnut (*Cameraria ohridella*) also found on maple.]
Ochrana Rostlin, 34(2), 67-68 (abst.).

Labanowski, G.; Soika, G. (1998) [The horse chestnut leaf miner infesting chestnut in Poland.]
Ochrona Roslin, 42(12), 12 (abst.)

Skuhravy, V. (1999) [View of knowledge about the horse chestnut miner *Cameraria ohridella* Desch. & Dem. (Lep., Gracillariidae)]
Anzeiger für Schadlingskunde, 74(2), 95-99. (abst.)

Stiger, H.; de Haas, A.M. (1999) Nieuwe mineermot in paardekastanje.
Nieuwsbrief PD, no 5, September 1999.
http://www.minlnv.nl/pd/nwsbrf/nbr99-05.htm

NPPO of France, 2000-10.

Web site of the Institute of Organic Chemistry and Biochemistry, Department of Natural Products, Prague (CZ) on *Cameraria ohridella*.
http://www.uochb.cas.cz/~natur/cameraria/index.htm

Web site of 'Bruxelles et Environnement'
http://www.ibgebim.be/FR/PUBLIC/index.htm

Additional key words: new records, host plants

Computer codes: LITHOD, AL, BA, BE, BG, CH, FR, NL, RO, PL

2000/175 Control measures against *Cameraria ohridella*

A paper presented at the International Symposium on Plant Health in Urban Horticulture, 2000-05-22/25, in Braunschweig, Germany, reviews the existing control measures against *Cameraria ohridella* (EPPO Alert list). The main constraint is that horse chestnut trees are mainly grown in urban environment.
Cultural methods: Sufficient irrigation and nutrition of the trees are important factors to ensure good tree vitality. Removal by burning or composting of dead leaves which contain overwintering pupae efficiently reduces the first generation of the moth the following spring. It is recognized that removal of dead leaves is difficult in large parks or in forest areas.
Chemical methods: Tree injections with systemic insecticides were tried but appeared difficult in practice (irregular penetration of the product, phytoxicity of solvent). Insect growth regulators (triflumuron, diflubenzuron) appear more effective and practicable. For example, effective control has been achieved in Austria with diflubenzuron at a concentration of 0.04 %, with one treatment per year applied during the flight period of the first generation (mid or end of April). Although effective, chemical control is generally not regarded as appropriate in the long term.
Biological control: Studies done in Austria have identified 22 parasitoids on *C. ohridella*. The most abundant species were *Pnigalio agraules* and *Minotetrastichus frontalis*. However, the rate of parasitism was very low (5 to 20 %). Further investigations are being made in other

European countries on parasitoid species, mass rearing or parasitoids, identification of the possible area of origin of *C. ohridella* (it is speculated that it may originate from America or the Far East). The sex pheromone of *C. ohridella* has been identified and produced, and studies are continuing on how to use it for monitoring and control.
Finally, the author stressed the need for international cooperation on an integrated pest management system for urban areas.

Source: Lethmayer, C. (2000) Control measures against the horse chestnut leafminer, *Cameraria ohridella*.
Mitteilungen aus der Biologischen Bundesanstalt für Land- und Forstwirtschaft, no. 370, 256-255.

Additional key words: control methods **Computer codes:** LITHOD

2000/176 Details on *Thrips palmi* in Korea Republic

In a scientific paper on spatial distribution and sampling methods, some details are given on the situation of *Thrips palmi* (EPPO A1 quarantine pest) in Korea Republic. *T. palmi* was first found in 1993 in protected cultivation of capsicum. Within a few years, it has become a serious pest of vegetable and ornamental crops in the southern coastal areas of Korea, including Cheju island. For example, it is reported that in 1994 an outbreak of *T. palmi* on potatoes grown in Cheju island caused yield losses of 30 %. The geographical distribution of *T. palmi* is expanding towards the north, due to its wide host range and lack of effective control measures.

Source: Cho, K.; Kang, S.H.; Lee, G.S. (2000) Spatial distribution and sampling plans for *Thrips palmi* (Thysanoptera: Thripidae) infesting fall potato in Korea.
Journal of Economic Entomology, 93(2), 503-510.

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

2000/177 *Carposina niponensis* – nomenclature goes full circle

In the 1960s and 70s, a Far Eastern pest named *Carposina sasakii* appeared in the regulations of the USSR. This was then renamed *Carposina niponensis* and, under this name, added to the EPPO quarantine lists, and documented in a data sheet in *Bulletin OEPP/EPPO Bulletin*, then in *Quarantine Pests for Europe*. It also appears in Annex II/A1 of EU Directive 2000/29. A review of the genus *Carposina* has led to the conclusion that the name *C. niponensis* and *C. sasakii* do not refer to one species. The pest species is *C. sasakii*, while *C. niponensis* is a distinct species of no economic importance. It is clear that, according to the original intention, the listed pest should be *C. sasakii*.

Source: CABI Distribution Maps of Pests no. 511.

Additional key words: taxonomy **Computer codes:** CARSNI

2000/178 New disease of broccoli caused by *Pseudomonas syringae*

In 1998 and 1999, a new disease of broccoli (*Brassica oleracea* var *botrytis*) was observed in commercial crops in the Salinas Valley in California, USA. Initial symptoms consisted of large, water-soaked, dark green, angular leaf sections delimited by major leaf veins. As the disease developed affected areas turned tan and papery and leaf margins sometimes became tattered. Small round to angular spots were also present. The bacterium associated with the disease was identified as *Pseudomonas syringae*. Pathogenicity of 13 strains of this bacterium was demonstrated onto broccoli (*Brassica oleracea* var *botrytis*) and broccoli raab (*Brassica rapa* var *rapa*). Strains were reisolated from symptomatic tissue and identified as *P. syringae*. It can be recalled that a *P. syringae* (EPPO Alert list) was also found in commercial broccoli raab crops in the Salinas Valley (see EPPO RS 99/030). Unlike most *P. syringae* strains, it was observed that the strains from broccoli were sensitive to a bacteriophage recovered from *P. syringae* infecting broccoli raab. The authors felt that the broccoli and broccoli raab pathogens may be related.

Source: Koike, S.T.; Cintas, N.A. (2000) Bacterial blight, a new disease of broccoli caused by *Pseudomonas syringae* in California.
Plant Disease, 84(3), p 370.

Additional key words: new host plant **Computer codes:** PSDMSP, US

2000/179 Studies on fungi associated with root rot and vine decline of melons in California (US)

Melons (*Cucumis melo*) are important crops in California (US), in 1999 they were planted on approximately 37,500 ha representing 68 % of the US production. The occurrence of fungi associated with root rot and vine decline has been surveyed in commercial melon fields from 1995 to 1997. The most commonly found fungi species, isolated from diseased roots, were the following: *Acremonium cucurbitacearum* (EPPO Alert list – recovered from plants in 32 % of surveyed fields), *Rhizopycnis vagum* (a recently described species, implicated in vine decline in Rio Grande Valley in Texas – 31%), *Pythium* spp. (23 %), *Macrophomina phaseolina* (23 %), *Verticillium dahliae* (25 %), *Fusarium solani* (21 %), *Monosporascus cannonballus* (EPPO Alert list – 15 %) and *Rhizoctonia solani* (7 %). According to the species found, symptomatology varied, but with some overlap of symptoms. In many cases more than one species was isolated. For example, *A. cucurbitacearum* and *R. vagum* were often found together. The frequency of isolation of a given fungus also varied with geographical location. *M. cannonballus* was only present in the southern production areas, whereas *A. cucubitacearum* and *R. vagum* were most common in the northern production areas. Pathogenicity tests were carried out in field microplots and in glasshouses. *M. cannonballus* caused vine collapse and severe root rot of melon in field microplot tests. *R. vagum* and *A. cucurbitacearum* were weakly pathogenic in field microplots, but caused root discoloration and reduced vine growth in glasshouse tests. The authors pointed out that the colonization of melon roots by *A. cucurbitacearum*, *R. vagum* and *M. cannonballus* may contribute to plant decline, but other environmental factors are likely to be involved in the disease and need to be determined.

Source: Aegerter, B.J.; Gordon, T.R.; Davis, R.M.; (2000) Occurrence and pathogenicity of fungi associated with melon root rot and vine decline in California.
Plant Disease, 84(3), 224-230.

Additional key words: new records, detailed records **Computer codes:** ACRESP, MSPSCB, US

2000/180 Situation of Dutch elm disease in New Zealand

Dutch elm disease (*Ophiostoma ulmi*, *O. novo-ulmi*) was first reported in New Zealand in central Auckland in December 1989. Measures were put in place to prevent any further spread: destruction of diseased trees, prohibition of movement of any elm material from infected areas, pheromone trapping of the insect vector (*Scolytus multistriatus*). In summer 1993/94, the disease was also found near Napier and in 1997, 200 elm trees were removed and destroyed. Since then, no other infection has been found in Napier. In the Auckland area, ongoing surveys were conducted in all recorded elm locations. During the last 10 years, disease levels declined and no new infected tree locations were detected. During the next five years, all elm trees within the Auckland area will be tested for the presence of the fungus. The authorities felt that Dutch elm disease is now under control in New Zealand and that eradication may be achieved within the coming years.

Source: Ross, M. (2000) Dutch elm disease under control.
Biosecurity, no. 21, August 2000, MAF, New Zealand, p 14.

Additional key words: eradication **Computer codes:** CERAUL, NZ

2000/181 Black sigatoka in the Torres Strait islands (Australia)

In RS 2000/120, it was reported that *Mycosphaerella fijiensis* (causing black sigatoka disease of banana) has pest status 'transient: actionable, under eradication' in Queensland (Australia) and is absent from the rest of the country. This statement is essentially correct but it should be added that the disease is established on Murray Island in the Torres Strait. The border of Australia nearly reaches Papua New Guinea (PNG) so that almost all the Torres Strait islands are in Australia. Murray Island and several others lie on the PNG side of the Strait, and black sigatoka is tolerated if it occurs there (it is established in PNG). Another group of islands lies on the Australian side, off Cape York, and black sigatoka is subject to eradication there as it is in mainland Queensland.

Source: Dr D. Jones, CSL, York (GB)

Additional key words: detailed record **Computer codes:** AU, MYCOFI

2000/182 *Fusarium proliferatum* reported on date palms in Saudi Arabia

Date palm is an important crop in Saudi Arabia (15 million trees producing approximately 649,000 tons of fruits). In the Al Qassim and Al Medina Al Monawara regions, date palms showed symptoms of wilt and dieback, very similar to those caused by *Fusarium oxysporum* f. sp. *albedinis* (EPPO A2 quarantine pest). *F. oxysporum* f. sp. *albedinis*, the causal agent of Bayoud disease, is not present in Saudi Arabia and phytosanitary measures are taken to prevent its entry. The main fungal species isolated from diseased leaves and roots was identified as *Fusarium proliferatum*. Koch's postulates were completed. *F. proliferatum* is a well-know pathogen, present in many countries on various crops (e.g. maize, rice and asparagus). According to pathogenicity tests on date palm seedlings, *F. proliferatum* should be regarded as a potentially dangerous pathogen of date palm in Saudi Arabia. Nine strains of *F. proliferatum* isolated from date palms were also tested for the production of toxins (beauvericin, fumonisin B_1, fusaproliferin, fusaric acid and moniliformin). Two strains were able to produce all five toxins and all strains were able to produce at least three of these toxins. In addition to phytotoxic effects, these toxins have some effects on human health. More studies are needed on the possible risk of consumption of contaminated date palm fruit. This is the first time that *F. proliferatum* is reported as a pathogen of date palm in Saudi Arabia, and it is felt that further investigations are needed on the distribution of *F. proliferatum* in date palm-producing countries.

Source: Abdalla, M.Y.; Al-Rokibah, A.; Moretti, A.; Mulè, G. (2000) Pathogenicity of toxigenic *Fusarium proliferatum* from date palm in Saudi Arabia.
Plant Disease, 84(3), 321-324.

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

2000/183 PCR diagnostic method for *Bursaphelenchus xylophilus*

A simple PCR-RFLP method was developed in Japan to identify *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) and differentiate it from *B. mucronatus*. This method can be used on a single nematode, living or preserved (except nematodes preserved in fixatives containing aldehyde). An individual nematode (juvenile, adult) is crushed with a filter paper chip. This filter paper chip is placed into PCR buffer as the DNA template. The primer set used has been selected to amplify the internal transcribed spacer 1 and 2 regions of 5.8S rDNA. RFLP is then used to differentiate *B. xylophilus* from *B. mucronatus*. The authors concluded that their method is simple and reliable.

Source: Iwahori, H.; Kanzaki, N.; Futai, K. (2000) A simple, polymerase chain reaction-restriction fragment length polymorphism-aided diagnosis method for pine wilt disease.
Forest Pathology, 30(3), 157-164.

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

2000/184 EU Directive 77/93 passes away

We regret to announce that an old friend of EPPO, EU Directive 77/93, has now passed into history. A new and fully consolidated text has been published as EU Directive 2000/29. This is henceforth the key phytosanitary regulation of the European Union.

Source: EPPO Secretariat, 2000-11.

2000/185 Telediagnostic methods used in Norway

In collaboration with the Norwegian Agriculture Inspection, NCRI Plant Protection Centre has investigated the use of telediagnostics in plant protection. One regional office, Oslo, is equipped with video cameras mounted on microscope and binocular, in addition to conference camera, scanner and document camera. Live video pictures are sent via telephone lines to a diagnostic laboratory in Aas, where specialists are available at short notice to assist in the diagnostic work. The inspector in Oslo is trained to prepare specimens. Control of the microscope manipulations may be swapped between the local and the remote/central offices. A pilot study has been conducted in 2000 using this equipment. The results have been rewarding as different organisms have been accurately identified using these telediagnostic methods. This has allowed transporters to save valuable time during clearance of commodities. In addition, a closer contact between inspectors and diagnostic specialists has led to a better understanding of the problems to be shared between the two groups. The Norwegian Agriculture Inspection has planned to equip all its regional offices with the same type of equipment in order to provide a better service to the plant industry. Extension services may also benefit from this type of equipment which provides a faster response in diagnostics.

Source: Personal communication with Dr Haakon Magnus, NCRI Plant Protection Center, Norway.

Additional key words: diagnostic methods **Computer codes:** NO

2000/186 EPPO report on selected intercepted consignments

The EPPO Secretariat has gathered the intercepted consignment reports for 2000 received since the previous report (EPPO RS 2000/164) from the following countries: Denmark, France, Finland, Germany, Ireland, Netherlands, Norway, Poland, Slovenia, Sweden, Switzerland, United Kingdom. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets. When the occurrence of a pest in a given country is not known to the EPPO Secretariat, this is indicated by an asterisk (*).

The EPPO Secretariat has selected interceptions made because of the presence of pests. Other interceptions due to prohibited commodities, missing or invalid certificates are not indicated. It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their interception reports.

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Acaridae	*Sinapis alba*	Stored products	Czech Republic	Poland	1
Ambrosia	*Tussilago farfara, Coriandrum sativum*	Stored products	Ukraine	Poland	1
	Zea mays	Stored products	Austria	Poland	1
	Zea mays	Stored products	France	Poland	2
Ambrosia artemisiifolia	*Helianthus annuus*	Stored products	Hungary	Poland	1
Anarsia lineatella	*Prunus persica*	Fruits	Greece	Poland	1
Bemisia afer	*Laurus nobilis*	Plants for planting	Italy	United Kingdom	1
Bemisia tabaci	*Artemisia dracunculus*	Cut flowers	Israel	France	2
	Aster	Cut flowers	Israel	United Kingdom	1
	Bacopa monnieri	Aquarium plants	Thailand	France	1
	Begonia	Plants for planting	Netherlands	United Kingdom	1
	Bougainvillea	Plants for planting	Israel	France	1
	Crossandra infundibuliformis	Cuttings	Sri Lanka	Denmark	1
	Dendranthema	Cut flowers	Israel	France	1
	Dendranthema morifolium	Cut flowers	Spain	United Kingdom	2
	Euphorbia pulcherrima	Plants for planting	Netherlands	United Kingdom	1
	Euphorbia pulcherrima	Cuttings	Portugal	Sweden	3
	Euphorbia pulcherrima	Cuttings	Spain (Canary isl.)	Sweden	1
	Euphorbia pulcherrima	Cuttings	Unknown	Sweden	6
	Euphorbia pulcherrima	Cuttings	USA	United Kingdom	1
	Gypsophila	Cut flowers	Israel	France	1
	Hibiscus	Plants for planting	Netherlands	United Kingdom	1
	Hypericum	Cut flowers	Israel	United Kingdom	1
	Limnophila	Aquarium plants	Thailand	France	2
	Limnophila heterophylla	Aquarium plants	Singapore	Denmark	1
	Manihot	Vegetables	Cameroon	France	2
	Manihot	Vegetables	Nigeria	United Kingdom	1
	Manihot	Vegetables	Vietnam	France	1
	Mentha	Vegetables	Israel	France	6
	Mentha	Vegetables	Israel	United Kingdom	1
	Musa	Plants for planting	USA	United Kingdom	1
	Myrtus	Cut branches	Morocco	France	1
	Nemesia fruticans	Cuttings	Israel	United Kingdom	1
	Ocimum basilicum	Vegetables	Israel	France	2
	Origanum	Vegetables	Israel	France	2
	Origanum	Vegetables	Israel	United Kingdom	2
	Rosa	Cut flowers	Israel	France	1
	Solidago	Cut flowers	Israel	France	1
	Solidago	Cut flowers	Israel	Ireland	6
	Solidago	Cut flowers	Israel	United Kingdom	8
	Solidago	Cut flowers	Netherlands	Ireland	3
	Solidago	Cut flowers	Turkey	United Kingdom	1
	Solidago canadensis	Cut flowers	Israel	United Kingdom	1
	Solidaster	Cut flowers	(Netherlands)	United Kingdom	1
	Solidaster	Cut flowers	Israel	United Kingdom	1
	Trachelium	Cut flowers	Israel	France	1
	Trachelium	Cut flowers	Israel	United Kingdom	1
	Unspecified leaves	Vegetables	Nigeria	United Kingdom	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Cerambycidae (suspect *Chlorophorus*)	*Pinus*	Pine cones	India	United Kingdom	1
Citrus tristeza closterovirus	*Citrus sinensis*	Pot plants	Spain	France	1
Clavibacter michiganensis* subsp. *sepedonicus	*Solanum tuberosum*	Ware potatoes	Germany	Netherlands	6
Colletotrichum acutatum	*Fragaria ananassa*	Plants for planting	Netherlands	Finland	1
Cryptolestes	*Helianthus annuus*	Stored products	Hungary	Poland	1
Cryptolestes ferrugineus, Sitophilus, Tribolium	*Hordeum vulgare*	Stored products	Hungary	Slovenia	1
Cydia molesta	*Prunus persica*	Fruits	Italy	Poland	1
Ephestia cautella, E. elutella, Carpophilus hemipterus	*Theobroma cacao*	Stored products	Côte d'Ivoire	Poland	1
Frankliniella occidentalis	*Callistephus chinensis*	Cut flowers	Netherlands	Poland	1
	Cyclamen	Pot plants	Netherlands	Poland	1
	Ornamentals	Cut flowers	Netherlands	Poland	6
	Ornamentals	Pot plants	Netherlands	Poland	1
	Solanum pseudocapsicum	Plants for planting	Poland	Denmark	1
Glomerella cingulata	*Rhaphiolepis indica*	Plants for planting	USA	United Kingdom	1
Helicoverpa armigera	*Capsicum annuum*	Vegetables	Hungary	Poland	3
	Dianthus	Cut flowers	Morocco	France	2
	Dianthus	Cut flowers	Spain	United Kingdom	2
	Ocimum basilicum	Vegetables	Italy	United Kingdom	1
	Pelargonium	Cuttings	Tunisia	France	1
	Pisum sativum	Vegetables	Kenya	United Kingdom	1
	Pisum sativum	Vegetables	Zimbabwe	Netherlands	4
Hymenia recurvalis	*Amaranthus*	Vegetables	Nigeria	United Kingdom	2
Iva	*Hordeum vulgare*	Stored products	Ukraine	Poland	1
Leucinoides orbonalis	*Solanum*	Vegetables	Nigeria	United Kingdom	1
Liriomyza	*Allium fistulosum*	Vegetables	Zimbabwe	United Kingdom	2
	Aster	Cut flowers	(Netherlands)	United Kingdom	1
	Bupleurum rotundifolium	Cut flowers	Israel	United Kingdom	1
	Coriandrum	Vegetables	Vietnam	France	2
	Gerbera	Plants for planting	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	Israel	France	1
	Gypsophila paniculata	Cut flowers	Israel	United Kingdom	2
	Gypsophila paniculata	Cut flowers	Spain	United Kingdom	1
	Mentha	Vegetables	Israel	France	1
	Ocimum basilicum	Vegetables	Israel	France	1
	Ocimum basilicum	Vegetables	Thailand	Denmark	2
	Origanum	Vegetables	Israel	France	1
	Unspecified	Vegetables	Congo	France	1

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Liriomyza huidobrensis	*Allium*	Vegetables	Kenya	United Kingdom	2
	Allium fistulosum	Vegetables	Zimbabwe	United Kingdom	1
	Alstroemeria	Cut flowers	Kenya	United Kingdom	1
	Carthamus	Cut flowers	Israel	Ireland	1
	Carthamus tinctorius	Cut flowers	Israel	United Kingdom	1
	Carthamus tinctorius	Cut flowers	Kenya	United Kingdom	1
	Eryngium	Cut flowers	(Netherlands)	United Kingdom	1
	Eustoma	Cut flowers	Netherlands	United Kingdom	1
	Gypsophila	Cut flowers	(Netherlands)	United Kingdom	1
	Gypsophila	Cut flowers	Israel	Ireland	1
	Gypsophila	Cut flowers	Israel	United Kingdom	1
	Gypsophila	Cut flowers	Netherlands	Ireland	2
	Gypsophila	Cut flowers	Netherlands	Slovenia	4
	Gypsophila	Cut flowers	Netherlands	United Kingdom	3
	Gypsophila perfecta	Cut flowers	Italy	United Kingdom	1
	Gypsophila perfecta	Cut flowers	Netherlands	United Kingdom	1
	Pisum	Vegetables	Kenya	United Kingdom	1
	Pisum sativum	Vegetables	Kenya	United Kingdom	2
	Pisum sativum	Vegetables	Zimbabwe	United Kingdom	2
	Ranunculus	Plants for planting	Netherlands	United Kingdom	1
***Liriomyza* (suspect *huidobrensis*)**	*Eustoma*	Cut flowers	Netherlands	United Kingdom	1
Liriomyza huidobrensis, Helicoverpa armigera	*Pisum sativum*	Vegetables	Zimbabwe	United Kingdom	1
Liriomyza sativae	*Ocimum basilicum*	Vegetables	Thailand	France	2
	Ocimum sanctum	Vegetables	Thailand	France	1
Liriomyza trifolii	*Ocimum basilicum*	Vegetables	Spain (Canary isl.)	United Kingdom	1
Opogona sacchari	*Yucca*	Plants for planting	Netherlands	United Kingdom	2
Pepino mosaic potexvirus	*Lycopersicon esculentum*	Vegetables	Netherlands	United Kingdom	5
	Lycopersicon esculentum	Vegetables	Spain	United Kingdom	2
	Lycopersicon esculentum	Vegetables	Spain (Canary isl.)	United Kingdom	1
Puccinia horiana	*Dendranthema morifolium*	Cuttings	Brazil	United Kingdom	1
Pyralidae	*Myriophyllum mattogrossense, Limnophila*	Aquarium plants	Singapore	United Kingdom	1
Rhizopertha dominica	*Triticum*	Stored products	Czech Republic	Poland	2
	Triticum aestivum	Stored products	Hungary	Poland	1
Sitophilus oryzae	*Hordeum vulgare*	Stored products	Czech Republic	Poland	3
	Secale cereale	Stored products	Netherlands	Poland	1
	Triticum	Stored products	Czech Republic	Poland	7
	Triticum aestivum	Stored products	Czech Republic	Poland	10
	Triticum aestivum	Stored products	Hungary	Poland	1
	Zea mays	Stored products	Austria	Poland	2
	Zea mays	Stored products	France	Poland	2
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	France	1
	Orchidaceae	Cut flowers	Thailand	Finland	2

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
***Thrips* (suspect *palmi*)**	*Momordica*	Vegetables	Dominican Rep.	United Kingdom	1
Thysanoptera	*Dendrobium*	Cut flowers	Thailand	France	1
	Dendrobium	Cut flowers	Thailand	Germany	1
	Orchidaceae	Cut flowers	Thailand	France	2
	Solanum melongena	Vegetables	Thailand	France	1
	Vanda	Cut flowers	Thailand	France	1
Tilletia controversa	*Triticum*	Stored products	Czech Republic	Poland	15
	Triticum	Stored products	Hungary	Poland	1
	Triticum aestivum	Stored products	Czech Republic	Poland	14
	Triticum aestivum	Stored products	Hungary	Poland	1
	Triticum aestivum	Stored products	Unknown	Poland	1
Tilletia controversa, Sitophilus oryzae	*Triticum*	Stored products	Czech Republic	Poland	1
Tribolium	*Glycine max*	Stored products	Netherlands	Poland	2
	Hordeum vulgare	Stored products	Czech Republic	Poland	1
	Pisum sativum	Stored products	Czech Republic	Poland	1
	Secale cereale	Stored products	Czech Republic	Poland	1
	Secale cereale	Stored products	Germany	Poland	1
	Triticum	Stored products	Czech Republic	Poland	3
	Triticum aestivum	Stored products	Czech Republic	Poland	5
	Zea mays	Stored products	France	Poland	1
	Zea mays	Stored products	Germany	Poland	1
Tribolium confusum	*Triticum*	Stored products	Czech Republic	Poland	1
Tribolium, Cryptolestes ferrugineus	*Glycine max*	Stored products	Netherlands	Poland	1
Tribolium, Sitophilus oryzae	*Oryza sativa*	Stored products	Italy	Poland	1
	Triticum	Stored products	Czech Republic	Poland	1
	Zea mays	Stored products	France	Poland	1
Tribolium, Sitophilus oryzae, Acarus	*Hordeum vulgare*	Stored products	Czech Republic	Poland	1
Xanthomonas axonopodis* pv. *citri	*Citrus*	Plants for planting	Indonesia	Netherlands	1

- **Fruit flies**

Pest	Consignment	Country of origin	C. of destination	nb
Bactrocera	*Psidium guajava*	Egypt	Netherlands	1
	Psidium guajava	India	France	1
	Psidium guajava	Thailand	France	1
Bactrocera latifrons	*Capsicum frutescens*	Thailand	France	3
Ceratitis capitata	*C. reticulata, C. limon, C. sinensis*	Spain	Poland	1
	Citrus clementina	Spain	Poland	1
	Citrus reticulata	(Germany)	Poland	2
	Citrus reticulata	Spain	Poland	8

Pest	Consignment	Country of origin	C. of destination	nb
***C. capitata* (cont.)**	*Citrus reticulata, C. paradisi, C. limon, Capsicum annuum, Solanum melongena*	Spain	Poland	1
	Citrus reticulata, C. sinensis, Cucumis sativus	Spain	Poland	1
Tephritidae	*Mangifera indica*	Egypt	France	1
	Prunus domestica	Venezuela	France	1
	Psidium guajava	Venezuela	France	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Bursaphelenchus xylophilus	Coniferae	Packing material	USA	Finland	2
Grub holes >3mm	Coniferae	Packing material	China	Ireland	4
	Coniferae	Wood	Hungary	Ireland	1
	Wood	Packing material	China	Denmark	1
	Wood including Coniferae	Packing material	Canada	Finland	1
Monochamus	*Picea*	Wood	Slovakia	Poland	1
	Pinus sylvestris	Wood	Belarus	Poland	1
	Pinus	Wood	Russia	Finland	2
Dead adult insects (probably *Monochamus*)	Coniferae	Packing material	China	Ireland	1

- **Bonsais**

Pest	Consignment	Country of origin	C. of destination	nb
Bemisia tabaci	*Myrtus*	Israel	United Kingdom	1
Dialeurodes	*Ligustrum*	(Netherlands)	United Kingdom	1
	Ligustrum	China	United Kingdom	1
Dialeurodes citri	*Gardenia*	China	United Kingdom	1
Paratrichodorus porosus	*Acer*	China	United Kingdom	1
Rhizoecus hibisci	*Serissa serissoides*	China	United Kingdom	1
***Rhizoecus* (suspect *hibisci*)**	*Serissa*	China	United Kingdom	1

Source: EPPO Secretariat, 2000-11.