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Reporting

Service

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CONTENTS

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95/219 Establishment of a new regional plant protection organization: the Pacific Plant Protection Organization

At the 34th South Pacific Conference held in October 1994, in Vanuatu, a resolution on the establishment of the Pacific Plant Protection Organization (PPPO) was taken. The PPPO is now a regional plant protection organization and is established within the existing structures of the South Pacific Commission (SPC) and its Plant Protection Services. Members of the SPC will be members of the PPPO. This new organization will be 'responsible for coordinating harmonization of phytosanitary measures and for fostering cooperation in plant protection and other phytosanitary matters among Members and between them and countries and organizations outside the Pacific region', and it will 'provide advice on phytosanitary measures in order to facilitate trade without jeopardizing the plant health status of the importing members and countries'.

Source: **Pacific Plant Protection Organization Report. 7th Technical Consultation among Regional Plant Protection Organizations, South Pacific Commission Headquarters, Noumea, New Caledonia, 4-8 September 1995.**

95/220 Revision of the EPPO Specific Quarantine Requirements (SQRs)

The last published version of the EPPO SQRs was EPPO Technical Document no. 1008, which appeared in 1990. Since then a few SQRs then marked as 'still under study' have been approved by Council. Subsequently, the EPPO Working Party on Phytosanitary Regulations started a study comparing the SQRs with Annex IV of EU Directive 77/93 to ensure compatibility as far as possible. In 1995-09, EPPO Council approved a first set of such revised SQRs.

The EPPO Secretariat does not propose to publish a new hardcopy version of the SQRs until the comparative study has been completed (probably 3-4 years). However, a provisional up-to-date version is available as a Word for Windows file on diskette, and can be sent on request. Write, fax or e-mail EPPO for the 'SQRs on diskette'.

Source: **EPPO Secretariat, 1995-09**

EPPO *Reporting Service*

95/221 Bacterial fruit blotch of watermelon

A paper recently published in Plant Disease presents the situation of bacterial fruit blotch of watermelon in United States. This disease of watermelon (*Citrullus lanatus*) seedlings and fruit is due to *Acidovorax avenae* subsp. *citrulli*. In USA, it first appeared in commercial fields in 1989, in Florida (see EPPO RS 519/10, 1992). Early season outbreaks can result in total loss of fruit at harvest. Although extensive losses have been only reported on watermelon, symptoms on melon (*Cucumis melo*) have been seen in the fields. The disease seems to be limited to Cucurbitaceae, but little information is available on possible other hosts among this family. Characteristic symptoms on fruits appear as dark olive green stain, or blotch on the upper side of the fruit. The epidermis of the rind can then rupture and frequently bacterial ooze is produced. On leaves, small, dark brown, somewhat angular and water-soaked lesions can appear, but they are generally inconspicuous. On seedlings, water-soaked areas on the underside of cotyledons can be seen, and lesions on the hypocotyl cause collapse of the emerging plant. The pathogen is very likely transmitted by seeds. It can then be further spread by overhead irrigation in the transplant-producing units. After transplantation in the field, the disease can spread to neighbouring leaves and plants. Fruit can be infected at a very early stage and then seeds associated with the diseased fruit can remain in the soil. Local sources of inoculum that may contribute to outbreaks in succeeding crops could include volunteer seedlings from infected seeds, buried infected rind and perhaps cucurbit weed hosts. Control methods mainly rely on sanitation practices to apply during production of transplants and crop rotation. However, considering that host range is probably limited and that survival in the field within infested rind and volunteer plants may be limited in time, the authors felt that eradication of the disease from production regions may be possible.

According to this paper and the IMI description, *Acidovorax avenae* subsp. *citrulli* is present in the following countries:
Australia, Guam, Northern Mariana Islands (Tinian), USA (Arkansas, Delaware, Florida, Georgia, Iowa, Indiana, Maryland, North Carolina, South Carolina). The pathogen may also be present in Malaysia and Indonesia. In the American paper, it is however noted that in some states (Delaware, Iowa and Maryland) the disease was seen in the field in 1989, but has not been found since.

Source: Latin, R.X.; Hopkins, D.L. (1995) Bacterial fruit blotch of watermelon - The hypothetical exam question becomes reality.
Plant Disease, 79 (8), 761-765.

IMI Descriptions of Fungi and Bacteria, No. 1213, CABI, Wallingford (GB).

95/222 First report of *Clavibacter michiganensis* subsp. *michiganensis* on pepper in Indiana (US)

Clavibacter michiganensis subsp. *michiganensis* (EPPO A2 quarantine pest) has been isolated on sweet pepper (*Capsicum annuum*) from a commercial production field in northern Indiana (US). Although bacterial canker has been a common disease of tomatoes in Indiana for the past 10 year, this is the first time *C. m. michiganensis* is associated with pepper in this State. Symptoms on fruit are similar to those on tomato, but there were no conspicuous symptoms on the foliage of affected plants. There was no apparent yield losses attributable to this pathogen in the Indiana field. A similar report of *C. m. michiganensis* on sweet pepper was made in 1976, in California.

Source: Latin, R.; Tikhonova, I; Rane, K. (1995) First report of bacterial canker of pepper in Indiana.
Plant Disease, 79(8), p 860.

Additional key words: new record.

95/223 Southern hybridization and PCR for detection of *Clavibacter michiganensis* subsp. *michiganensis*

A specific detection method for *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 quarantine pest) has been developed in Germany, based on Southern hybridization with DNA-probes derived from plasmid-borne genes (*cel*A encoding an endonuclease and *pat*-1 involved in pathogenicity). The *cel*A probe allowed differentiation between the subspecies of *Clavibacter michiganensis* and the *pat*-1 probe distinguished between the virulent and avirulent strains of *Clavibacter michiganensis* subsp. *michiganensis*. A PCR test using primers derived from the *pat*-1 region has been developed and gave specific detection of the virulent strains of the bacterium. The latter were detectable in homogenates prepared from infected tomato plants, naturally contaminated seeds, and healthy plant homogenates containing as few as 2. 10^2 bacteria per ml.

Source: Dreier, J.; Bermpohl, A.; Eichenlaub, R. (1995) Southern hybridization and PCR for specific detection of phytopathogenic *Clavibacter michiganensis* subsp. *michiganensis*.
Phytopathology, 85(4), 462-468.

Additional key words: new detection method.

95/224 Biological control of *Clavibacter michiganensis* subsp. *sepedonicus*

Studies have been carried out in Canada in order to evaluate antagonistic bacteria for suppression of *Clavibacter michiganensis* subsp. *sepedonicus* (EPPO A2 quarantine pest). Several bacterial strains (88 strains) with a potential for biological control have been isolated from the surface of potato tubers and selected on the basis of in vitro antibiosis to *C. m. sepedonicus*. These strains have then been tested in the glasshouse on micropropagated plantlets of potato, inoculated with *C. m. sepedonicus*. As a result, 8 strains consistently prevented infection of potato plantlets. Three strains which showed a high potential for biological control were respectively identified as a saprophytic enteric bacterium, an *Arthrobacter* sp. and a soil coryneform bacterium. These three strains have been tested in a field trial on small plots by inoculating (cutting with a contaminated knife) seed potato tubers with *C. m. sepedonicus* and antagonists. During the growing season, potato plants were then inspected for ring rot symptoms and samples were tested by ELISA. Results obtained are encouraging as the relative number of ring rot-free progeny tubers was generally greater when antagonistic bacteria were present. However, the authors pointed out that further studies are needed, in order to better identify these antagonistic bacteria and to test whether low incidence infections can be controlled in large-scale field experiments.

Source: Gamard, P.; De Boer, S.H. (1995) Evaluation of antagonistic bacteria for suppression of bacterial ring rot of potato.
European Journal of Plant Pathology, 101 (5), 519-525.

95/225 PCR detection of *Clavibacter michiganensis* subsp. *sepedonicus*

Studies have been carried out in Canada to select and apply PCR primers for specific amplification and detection of *Clavibacter michiganensis* subsp. *sepedonicus* (EPPO A2 quarantine pest) in potato tuber samples. Primers targeting the intergenic spacer region between 16S and 23S rRNA genes have been selected. The spacer region between 16S and 23S rRNA genes has been almost completely sequenced for the 5 subspecies of *Clavibacter michiganensis*; and although it presents similarities among the subspecies, some base-pair differences could be used. The selected primers allowed specific detection of *Clavibacter michiganensis* subsp. *sepedonicus* and no reaction was obtained for other subspecies or closely related bacterial species. Amplification was also obtained with several strains of *Clavibacter michiganensis* subsp. *sepedonicus* from different geographical areas. PCR detection with these primers is more sensitive than ELISA and immunofluoresence (IF) tests based on monoclonal antibodies. Amplification was obtained for all potato tuber samples that were positive for *Clavibacter michiganensis* subsp. *sepedonicus* by ELISA or IF. No reaction was observed on healthy tubers. In addition, tubers from ring rot-infected plants, which tested negative in ELISA and IF, gave positive results by PCR.
Though this PCR test can be applied rather easily on a large number of samples, it is not expected that it will replace serological tests in routine, as it is more time-consuming. However, the authors felt that it is a useful test as it could confirm doubtful results given by serology, and could also provide a useful tool when studying the potential for persistence of the bacteria in the soil outside potato tissues.

Source: Li, X.; De Boer, H. (1995) Selection of Polymerase Chain Reaction primers from an RNA intergenic spacer region for specific detection of *Clavibacter michiganensis* subsp. *sepedonicus*.
Phytopathology, 85(8), 837-842.

Additional key words: new detection method.

95/226 Detection of *Xanthomonas campestris* pv. *vesicatoria* by PCR in pepper and tomato seeds

A PCR method has been developped in USA to detect *Xanthomonas campestris* pv. *vesicatoria* (EPPO A2 quarantine pest) associated with pepper (*Capsicum annuum*) and tomato (*Lycopersicon esculentum*) seeds. Oligonucleotide primers specific for the hypersensitive reaction and pathogenicity (*hpr*) gene cluster were used in the reaction. The minimum number of cells which could be detected in washes from pepper or tomato seeds was from 10^2 to 10^3 cfu per ml (which is approximately 1,000 times fewer than the minimum number of cells detected by ELISA).

Source: Leite, R.P.Jr; Jones, J.B.; Somodi, G.C. (1995) Detection of *Xanthomonas campestris* pv. *vesicatoria* associated with pepper and tomato seed by DNA amplification.
Plant Disease, 79(9), 917-922.

Additional key words: new detection method.

95/227 First report of *Curtobacterium flaccumfaciens* subsp. *flaccumfaciens* in North Dakota (US)

In November 1994, *Curtobacterium flaccumfaciens* subsp. *flaccumfaciens* has been found on a sample of *Phaseolus vulgaris* submitted by a local grower, in North Dakota (US). This disease has not been considered as an important pathogen of bean for 20 years and has not been previously described in the North Dakota-Minnesota bean production area. The authors felt that this disease threatens the production of certified beans, as certification standards require freedom from this pathogen. They recall that more than 230,000 ha of dry edible bean are grown in North Dakota, and 4,000 ha are in bean seed production.

Source: Venette, J.R.; Lamppa, R.S.; Gross, P.L. (1995) First report of bean bacterial wilt caused by *Curtobacterium flaccumfaciens* subsp. *flaccumfaciens* in North Dakota.
Plant Disease, 79(9), p 966.

Additional key words: new record.

95/228 *Xanthomonas campestris* pv. *citri* reported again from Florida (US)

The EPPO Secretariat has recently been informed by USDA that citrus canker, *Xanthomonas campestris* pv. *citri* (EPPO A1 quarantine pest) has been found in Miami, Florida (US), which is far away from the citrus-growing areas where the previous foci had been observed. Studies have shown that the disease is caused by the A strain of citrus canker. The disease is present in a small area (13.5 square miles) located between the Miami international airport and Florida International University. This area is only residential without any commercial citrus groves or nurseries. So far, 3,000 of the estimated 27,000 residential properties in the infested area have been inspected and approximately 25 % of the inspected properties have been found to contain infested trees. Measures are being taken to prevent any movement of citrus plant material from this infested area.

Source: **USDA-APHIS-IS, 1995-10**

95/229 *Phoma exigua* var. *foveata* is present in Poland

Studies were carried out in Poland on seed potatoes of native cultivars, from 1981 to 1987. Among 326 samples tested, 15 % showed infection by *Phoma exigua* var. *foveata* (EPPO A2 quarantine pest), 10 % by *P. exigua* var. *exigua* and 18 % by *P. eupyrena*. This confirms earlier 'unconfirmed records' on the occurrence of *P. exigua* var. *foveata* in Poland.

Source: Wnekowski, S. (1993) [From studies on gangrene *Phoma exigua* Desm. var. *foveata* (Foister) Boerema, *Phoma exigua* Desm. var. *exigua* and *Phoma eupyrena* Sacc. on potatoes in Poland].
Prace Naukowe Instytutu Ochrony Roslin, 33(1-2), 87-120.

Additional key words: detailed record.

95/230 Harvested grape bunches are not sources of *Xylella fastidiosa* inoculum

Studies have been carried out in California (US) in order to determine whether grape bunches could serve as feeding aquisition sources for efficient insect vectors of *Xylella fastidiosa* (EPPO A1 quarantine pest), which could then transmit the disease to other plants. The most efficient vectors are *Graphocephala atropunctata* and to a lesser extent *Draeculacephala minerva*. Insect vectors fed for 6 h on bunches harvested from infected grapevines, and were tested twice for *X. fastidiosa* by exposure to healthy grapes. Bunches were tested as possible sources 1, 7, 14 and 21 days after harvest (from infected grapevines). None of the 420 surviving *Graphocephala atropunctata* or 84 *Draeculacephala minerva* transmitted the bacterium to grape. However, when using the same insects but feeding on infected grape foliage instead of bunches, high rates of transmission were obtained. Isolation of the bacteria from stems and rachises of bunches was successful in only 5 to 24 samples, one day after harvest. Concentrations of *X. fastidiosa* isolated from stems of diseased bunches were about 10 to 100 times lower than typical concentrations in grape petioles or leaf veins. These concentrations decreased each week, and bacteria were not recovered after storage for 3 weeks. The authors felt that this information would be useful in assessing quarantine measures to prevent the introduction of *X. fastidiosa* in shipments of fresh grapes.

Source: Purcell, A.H.; Saunders, S. (1995) Harvested grape clusters as inoculum for Pierce's disease.
Plant Disease, 79(2), 190-192.

95/231 Phytoplasma infecting grapevine in Liguria (Italy)

In Liguria (IT), in the Bisagno valley, a severe grapevine yellows disease with symptoms indistinguishable from grapevine flavescence dorée (EPPO A2 quarantine pest) has been observed over the past three years. Affected cultivars are Albarola, Bosco and Moscato Bianco. Young grapevines (2-3 years old) were killed, while older plants presented a reduction in yield up to 50 %. Previous studies carried out in this region on a similar disease had shown that phytoplasmas were associated with the diseased grapevines. Molecular studies, using PCR followed by RFLP analysis, have been carried out on symptomatic grapevines. Results confirmed the presence of phytoplasmas in diseased grapevines. They also showed that a double phytoplasma infection was probably involved, and that a phytoplasma belonging to the elm yellows group (to which grapevine flavescence dorée also belongs) and a phytoplasma belonging to the aster yellows group were present.

Source: Bertaccini, A.; Vibio, M.; Stefani, E. (1995) Detection and molecular characterization of phytoplasmas infecting grapevine in Liguria (Italy). **Phytopathologia Mediterranea, 34 (2), 137-141.**

EPPO *Reporting Service*

95/232 Grapevine pests and diseases in France

Several papers published in Phytoma describe the phytosanitary situation of grapevine in France. The EPPO Secretariat has picked out the following information concerning quarantine pests:

- *Xylophilus ampelinus* (EPPO A2 quarantine pest)

At the beginning of the 1980s, *X. ampelinus* was mainly recorded in the Cognac vineyards and its incidence later decreased. However, due to the cool springs of 1993, 1994 and 1995 an increase of the disease has been observed not only in Cognac but also in Diois (Drôme) in 1994, in Gers and Pyrénées-Orientales (where the disease is endemic) in 1995. *X. ampelinus* has been found for the first time in Bas-Armagnac on a small focus (5 ha). In France, the main cultivars affected are: Ugni Blanc, Colombard, Clairette et Grenache. To control the disease early pruning and copper treatments are recommended, although early pruning is hampered in regions where another disease is present (*Eutypa lata*) which is on the contrary favoured by this cultural operation.

- Grapevine flavescence dorée phytoplasma (EPPO A2 quarantine pest)

Grapevine flavescence dorée (FD) is not present in Alsace. The disease is limited and well contained in northern vineyards (Champagne, Bourgogne, Centre and Pays de Loire). The situation is stable in Jura and most of the Rhône-Alpes region (excepted in Bas-Vivarais). In Aquitaine, foci found in 1994 are still active and new foci have been found in Gironde, Dordogne and Landes. In Midi-Pyrénées, FD is progresing slowly. In Pyrénées-Orientales and Aude (Languedoc-Roussillon), disease incidence has noticeably increased, and in 1995 compulsory treatments against the vector, *Scaphoideus titanus*, were carried out on 25,000 ha.

- Bois noir and other yellows

In Bourgogne, symptoms of grapevine yellows are mainly due to grapevine bois noir phytoplasma and to a lesser extent to a third unknown agent. Two new foci of bois noir have been found in Auvergne. In the south of France (Aude, Hérault, Bas-Vivarais), grapevine flavescence dorée and bois noir are present together. In Val de Loire, symptoms of a non-identified grapevine yellows have been observed.

- *Viteus vitifoliae* (EPPO A2 quarantine pest)

Viteus vitifoliae is considered as a secondary pest. Some gall symptoms have been reported more frequently than usual in the Bordeaux region (Entre-deux-mers), but did not lead to serious damage.

Sources: Descoin, M. (1995) Le "millésime phytosanitaire" 1995. France viticole, terre de contrastes... cette année.
Phytoma - La défense des Végétaux, n° 477, 11-14.

Descoin, M. (1995) Eutypiose et nécrose bacterienne. Casse-tête sur les bois.
Phytoma - La défense des Végétaux, n° 477, 15-16.

Descoin, M. (1995) Flavescence dorée. La guerre des Corbières.
Phytoma - La défense des Végétaux, n° 477, 26-28.

95/233 Non-European fruit flies of Asia and Pacific

An EPPO Secretariat review of the geographical distribution of certain tephritid fruit flies in the Asia and Pacific area has singled out several species quoted as pests by White and Elson-Harris (1992), but not yet explicitly assessed within the EPPO system.

1. *Bactrocera jarvisi* (Tryon)
A pest of guavas, persimmon and mangoes in northern Australia.

2. *Bactrocera latifrons* (Hendel) - Solanum fruit fly
A pest of Solanaceous crops, especially capsicums, also recorded on tomato, aubergine and various *Solanum* spp.
Distribution: China, India, Laos, Malaysia, Pakistan, Sri Lanka, Taiwan, Thailand, USA (Hawaii).

3. *Bactrocera musae* (Tryon) - Banana fruit fly.
A serious pest of bananas, present in Australia (Queensland), Papua New Guinea, Solomon Islands. This species was excluded from further consideration by EPPO because no pathway for introduction to the EPPO region was considered to exist (bananas always being shipped unripe). Bananas are cultivated in several mediterranean EPPO countries.

Source: **EPPO Secretariat, 1995-11.**

95/234 Detection of irradiated *Anastrepha suspensa* larvae

The loss of ethylene dibromide as a fumigant and the possible loss of methyl bromide has increased interest in irradiation as a quarantine treatment. For quarantine purposes, a minimum dose of 150 Gy has previously been recommended. However, it is important to develop tests to verify that any live insect intercepted on an imported commodity has been irradiated with the required dose. Studies have been carried out in USA on first instars of *Anastrepha suspensa* (EPPO A1 quarantine pest) which were irradiated at the following doses: 0, 5, 10, 20, 50, 75, 100, 150 Gy and then killed in the freezer. Tested larvae were observed for whole body melanization until they reach late third instar. Control larvae rapidly melanize, whereas larvae irradiated at doses ≥ 20 Gy failed to show typical melanization after freezing and thawing. However, this melanization test after death is not applicable to 1st and 2nd larval instar. The authors point out that this is a very simple test that requires no special training or equipment, except a freezer.
In addition, a simple qualitative spot test for phenoloxidase activity (which is much reduced by irradiation) have been developed. It can be performed with only a portion of the crushed body of a single third instar, a red colour developed in 15 min or less on a transparency film containing 100 μg dried 2-methyl DOPA. The red colour is due to the phenoloxidase action on the 2-methyl DOPA substrate. Irradiation of first instars at doses ≥ 20 Gy caused a failure in third instars to develop normal phenoloxidase activity and therefore no red colour appear. However, this spot test can only be used on third larval instars.

Source: Nation, J.L.; Smittle, B.J.; Milne, K. (1995) Radiation-induced changes in melanization and phenoloxidase in Caribbean fruit fly larvae (Diptera:Tephritidae) as the basis for a simple test of irradiation.
Annals of the Entomological Society of America, 88(2), 201-205.

95/235 *Maconellicoccus hirsutus* a new pest in Grenada and Trinidad

Maconellicoccus hirsutus (pink or Hibiscus mealybug) has newly been introduced into the Caribbean. It was found in Grenada in November 1994 and is causing serious damage on ornamentals, vegetables, forest and fruit trees of economic importance. In addition, it has now been found in Trinidad in August 1995. An FAO-funded programme has been set up in Grenada to control the pest with selective insecticides and in the medium term with biological methods. A parasitoid wasp, *Anagyrus hamali* is being studied. The aim of this programme is also to prevent further spread of the pink mealybug in the Caribbean region and Latin America. This pest is present in Africa, Asia and Oceania and is extremely polyphagous. It is felt that *M. hirsutus* should be considered of quarantine importance for the Caribbean and Latin America region.

Source: Anonymous (1995) Pink mealybug threatens Grenadas's crops.
CAB International News September 1995, p 5.
Pollard, G.V. (1995) Update on new pests introductions - Pink mealybug, *Maconellicoccus hirsutus* (Green).
FAO Circular Letter no. 3/95, FAO Regional Office for Latin America and the Caribbean.

Additional key words: new record.

95/236 Chemical control of *Thrips palmi* on beans in Venezuela

Thrips palmi (EPPO A1 quarantine pest) has been found for the first time in Venezuela on beans (*Phaseolus vulgaris*), potato (*Solanum tuberosum*), aubergine (*S. melongena*) and melon (*Cucumis melo*) during 1990-1991 (EPPO RS 95/117). Other affected crops include cucumber (*Cucumis sativus*), pepper (*Capsicum annuum*), sesame (*Sesamum indicum*), sunflower (*Helianthus annuus*), soybean (*Glycine max*), cowpea (*Vigna sinensis*), tobacco (*Nicotiana tabacum*) and squash (*Cucurbita pepo*). Preliminary trials with 11 insecticides have been carried out in 1991 on *P. vulgaris*. Flufenoxuron (1 l/ha), imidacloprid (1 l/ha) and chlorfluazuron (1.5 l/ha) were the most effective insecticides, when applied at 5-day interval. However, no insecticide was more than 81.5 % effective.

Source: Cermeli, M.; Montagne, A.; Godoy, F. (1993) [Preliminary results on the chemical control of *Thrips palmi* Karny (Thysanoptera: Thripidae) on beans (*Phaseolus vulgaris* L.)].
Boletín de Entomología Venezolana, 8(1), 63-73.

Additional key words: chemical control.

95/237 *Frankliniella occidentalis* is present in Turkey

Frankliniella occidentalis (EPPO A2 quarantine pest) was first detected in Turkey in December 1993. It has been found infesting glasshouse crops in Antalya, a province of Turkey situated along the western part of the Mediterranean coast. The author felt that the pest has probably been introduced on imported material, as it is not found in the European part of Turkey or the Aegean region. So far, surveys carried out by the Plant Protection Service indicate a patchy distribution of *Frankliniella occidentalis*, as the infestations found are limited to pepper (*Capsicum annuum*) and carnations grown in glasshouses in Antalya. It is expected that *F. occidentalis* will be able to infest also outdoor crops. Concerns are also raised in Turkey about the transmission of tomato spotted wilt and impatiens necrotic spot tospoviruses.

Source: Tunç, I.; Göçcem, H. (1994) New greenhouse pests, *Polyphagotarsonemus latus* and *Frankliniella occidentalis*, in Turkey. **FAO Plant Protection Bulletin, 42 (2), 218-220.**

Additional key words: new record.

EPPO *Reporting Service*

95/238 Differentiation between *Mycosphaerella dearnessii* isolates from USA and China

In this paper, the situation of *Mycosphaerella dearnessii* (EPPO A2 quarantine pest) in USA and in China is recalled. In southern USA, *M. dearnessii* causes severe growth reduction or death of seedlings of *Pinus palustris*. Heavy infections in *P. palustris* stands can reduce pulpwood yields up to 60 %. In northern USA, defoliation of *P. sylvestris* can render Christmas trees unmarketable. In south-eastern China, severe damage occurred on *P. taeda* and *P. thunbergii*, but unlike in USA only slight damage on *P. palustris* was seen. In China, the disease was reported near Nanjing (Zhejiang province) in the early 1950s on *P. thunbergii* but no severe outbreak was seen before 1978. In the meantime, China started to import large amounts of *P. elliottii* from USA. Since 1978, many young plantations of *P. elliottii* have been damaged by *M. dearnessii*. The disease has been especially severe in Fujian Province and has spread to other provinces. Studies on genetic differences between isolates from USA and China were felt useful.

Isolates of *M. dearnessii* have been collected from northern and southern United States (Alabama, Florida, Louisiana, Mississippi, Iowa, Illinois*, Minnesota, Wisconsin) and from China (Fujian, Guangxi, Jiangsu, Jiangxi, Zhejiang*). These isolates have been analysed for differences in cultural morphology, growth rate, conidial germination at various temperatures and RADP markers. Differences in cultural morphology and conidial germination were detected between northern US isolates and other sources, but not between southern isolates and Chinese isolates. RADP analysis showed that northern US isolates composed a distinct 'northern group' while southern US and Chinese isolates composed a related 'southern group'. The authors felt that their results support a southern US origin of the current Chinese populations. Further studies are needed for a better understanding of the differences between northern and southern US isolates and also between American and European isolates (which so far appear to be closer to northern US isolates).

Source: Huang, Z.Y.; Smalley, E.B.; Guries, R.P. (1995) Differentiation of *Mycosphaerella dearnessii* by cultural characters and RAPD analysis. **Phytopathology, 85(5), 522-527.**

*) new detailed records

EPPO *Reporting Service*

95/239 First report of *Mycosphaerella dearnessii* in Switzerland and in Germany

Mycosphaerella dearnessii (EPPO A2 quarantine pest) has been found for the first time in Switzerland in 1995-06. The disease was observed on five *Pinus mugo* (approximately 20-30 years old) and two *P. uncinata* in the cemetery of the municipality of Zollikon near Zürich. But it was not observed on *P. sylvestris* trees adjacent to the diseased trees. Control measures were immediately applied. Authors recalled that this fungus is thought to be of American origin, but that it has been recorded in the past in Bulgaria on *P. nigra*, in Spain on *P. radiata*, in Austria on *P. nigra*, in Croatia on *P. halepensis*, in Georgia, and recently in France (EPPO RS 94/087) and in southern Germany on *Pinus mugo* (this is also a new record). Authors concluded that this disease is perhaps more widely present in Europe than previously thought, as it may remain latent under certain conditions. EPPO continues to regard the reports from Austria, Bulgaria and Spain as unconfirmed.

Source: Holdenrieder, O.; Sieber, T.N. (1995) First report of *Mycosphaerella dearnessii* in Switzerland.
European Journal of Forest Pathology.

Pehl, L. (1995) *Lecanosticta*-Nadelbräune - Ein neue Kiefernkrankheit in der Bundesrepublik Deutschland.
Nachrichtenblatt des Deutschen Pflanzenschutzdienstes.

Additional key words: new record.

95/240 EPPO Distribution List for *Mycosphaerella dearnessii*

EPPO RS 95/197 accidentaly inverted the data for *Mycosphaerella gibsonii* and *M. dearnessii*. We publish here an updated and corrected distribution list for *M. dearnessii* which takes into account the information from CABI, the new records in Switzerland, Germany (EPPO RS 95/239) and the detailled records in Jiangsu (CN) and Illinois (US) (EPPO RS 95/238).

EPPO Distribution List: *Mycosphaerella dearnessii*

The fungus appears to be of American origin and has spread to other continents. Its first report in the EPPO region was in 1978 but some forest pathologists have claimed that it was already present in a number of EPPO countries, for example Austria, Bulgaria, Spain. These suggestions are still under discussion.

EPPO region: Austria (unconfirmed), Bulgaria (unconfirmed), Croatia, France (under eradication), Germany, Greece (unconfirmed), Spain (unconfirmed), Switzerland.

Africa: South Africa.

Asia: China (Fujian, Guangdong, Guangxi, Jiangsu, Jiangxi), Georgia.

North America: Canada (Manitoba), Mexico, USA (particularly in the southern coastal states, Alabama, Arkansas, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Montana, New York, North Carolina, Ohio, Oregon, South Carolina, Tennessee, Texas, Virgina, Wisconsin).

Central America and Caribbean: Belize, Costa Rica, Cuba, Guatemala, Honduras, Jamaica, Nicaragua.

South America: Colombia.

This distribution list replaces all previous published EPPO Distribution Lists on *Mycosphaerella dearnessii*!

Source: **EPPO Secretariat, Paris (1994-04)**

EPPO *Reporting Service*

95/241 EPPO Distribution List for *Mycosphaerella gibsonii*

EPPO RS 95/197 accidentally inverted the data for *Mycosphaerella gibsonii* and *M. dearnessii*. We publish here an updated and corrected distribution list for *M. gibsonii* which takes into account the information from CABI.

EPPO Distribution List: *Mycosphaerella gibsonii*

EPPO region: Absent.

Asia: Bangladesh, China (Anhui, Fujian, Guangdong, Guangxi, Hunan, Jiangsu, Jiangxi), Hong Kong (unconfirmed), India (Madhya Pradesh, Uttar Pradesh), Japan (western half of Honshu, Shikoku and Kyushu), Korea Dem. People's Republic, Korea Republic, Malaysia (peninsular, Sabah), Nepal, Philippines, Sri Lanka, Taiwan, Thailand, Vietnam.

Africa: Kenya, Madagascar, Malawi, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.

Central America and Caribbean: Costa Rica, Jamaica, Netherlands Antilles, Nicaragua (reported at one location).

Oceania: Australia (Victoria, unconfirmed), New Zealand (unconfirmed), Papua New Guinea.

This distribution list replaces all previous published EPPO Distribution Lists on *Mycosphaerella gibsonii*!

Source: **EPPO Secretariat, 1994-09.**

95/242 FAO/IPGRI Technical Guidelines for the safe movement of small-grain temperate cereals

FAO and IPGRI (International Plant Genetic Resources Institute, previously IBPGR) have recently issued technical guidelines for the safe movement of small-grain temperate cereals. These guidelines give information on diseases and pests of small-grain cereals (symptoms, host range, geographical distribution, transmission) and provide relevant data on treatments to be used in order to ensure safe movement of planting material of these crops.
So far, FAO/IBPGR have already published guidelines for the following crops: cocoa, Musa, edible aroids, yam, sweet potato, legumes, citrus, cassava, grapevine, vanilla, coconut, sugarcane and small fruits.

They can be obtained from:

Publications Office, IPGRI Headquarters
Via delle Sette Chiese 142
00145 Rome
Italy
Tel: (39-6) 518921
Fax: (39-6) 5750309

Source: **FAO/IPGRI, 1995-09.**

Additional key words: publication.

95/243 *Tilletia indica* found in Brazil

The FAO/IPGRI Technical Guidelines for the safe movement of small-grain temperate cereals quote *Tilletia indica* (EPPO A1 quarantine pest) as present in Brazil in the Southern part of Rio Grande do Sul and being under eradication, but so far no further information is available.

Source: **FAO/IPGRI Technical Guidelines for the safe movement of small grain temperate cereals (1995), FAO/IPGRI, Rome (IT)**

95/244 XIth International Botrytis Symposium

The XIth International Botrytis Symposium will be held in Wageningen, The Netherlands, in June 1996 (1996-06-23/28).

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Source: EPPO Secretariat, 1995-03.