ORGANISATION EUROPÉENNE ET MÉDITERRANÉENNE POUR LA PROTECTION DES PLANTES
EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

EPPO

Reporting Service

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1, rue Le Nôtre. 75016 PARIS Tél. : (33 1) 45 20 77 94 Fax : (33 1) 42 24 89 43 : (33 1) 40 50 62 83 Télex : 643 395 OEPP F

94/061 **NEWPEST/DIAPPM...*Diaporthe phaseolorum* f.sp. *meridionalis* causing extensive soybean losses in Brazil**

Diaporthe phaseolorum f.sp. *meridionalis* (*Diaporthe phaseolorum* was deleted from the EPPO A2 quarantine list in 1992-09) has been identified as the causal agent of soybean stem canker and represents a new, aggressive variant of the seed-borne fungal pathogen complex *Diaporthe phaseolorum* in Brazil. It is regarded as the most important problem in the soy-bean crop in Brazil at present. It has been first detected in the growing season of 1989/90 and has since spread to important soybean production areas of the countries. Yield losses up to 80% were reported and data from the 1991/92 harvest showed that in some regions of Parana estimated losses exceeded 4 million USD. The pathogen is usually spread by seed and seed infections are usually less than 1%!

Source: Blakemore, E.J.A.; Jaccoud Filho, D.S.; Reeves, J.C. (1994) PCR for the detection of *Pyrenophora* species, *Fusarium monoliforme*, *Stenocarpella maydis* and the *Phomopsis*/*Diaporthe* complex.
In: Modern Assays for Plant Pathogenic Fungi. [eds. Schots, A.; Dewey, F.M.; Oliver, R.] CAB International, Wallingford, UK. ISBN: 0 85198 870 9

94/062 **NEW PEST/DIABVI/YU...Update on the occurrence of *Diabrotica virgifera virgifera* in Yugoslavia**

The EPPO Secretariat has received an official notification from the Federal Ministry of Agriculture in Belgrade that the presence of *Diabrotica virgifera virgifera* (potential EPPO A2 quarantine pest) has been established in 1993 with certainty in a number of localities in Donji Srem and two localities in Banat (Krnjaca and Pancevo). The Federal Ministry of Agriculture and specialized services in the field are exerting efforts to prevent further spread.

Source: **The Federal Ministry of Agriculture, Belgrade, (1994-03)**

94/063 BTNYVX...Beet necrotic yellow vein furovirus is not present in Czechia (CZ)

Surveys were carried out in the Czech Republic during the years 1991 and 1992 for the occurrence of beet necrotic yellow vein furovirus (EPPO A2 quarantine pest). Although *Polymyxa betae* (POLMBE) was found in 64% of all samples from all sugarbeet cultivating areas in the Republic, rhizomania was not detected at all. Additional experiments carried out in natural infected fields in Germany and France on the susceptibility of Czech sugarbeet cvs. to rhizomania showed that Czech and Slovak sugarbeet cvs. are highly sensitive to beet necrotic yellow vein furovirus.

Source: Ministry of Agriculture of the Czech Republic (1993) Observation on the occurrence of rhizomania (BNYVV) and *Polymyxa betae* in the Czech Republic.
Plant Protection Yearbook 1991-1992, p. 50-51.

94/064 BTNYVX...EPPO Distribution List for beet necrotic yellow vein furovirus

Due to the stated absence of beet necrotic yellow vein furovirus (EPPO A2 quarantine pest) from the Czech Republic the distribution of this virus should be changed.
The Polish Plant Protection Service has also provided new information for updating the PQR data base.

EPPO Distribution List: *Beet necrotic yellow vein furovirus*

In the EPPO region, rhizomania damage was first observed in Italy during the 1950s, in the Po plain and the Adige Valley (Canova, 1959). From 1971 to 1982 it was observed in an increasing number of central and southern European countries: Austria, France, Germany, Greece, Yugoslavia (Koch, 1982). It was also found in most of eastern Europe: Bulgaria, Hungary, Romania, Russia. In 1983, it was discovered further north: Belgium, northern France, Netherlands, Switzerland (Richard-Molard, 1985). The disease is now considered to occur in most sugarbeet-growing countries in the EPPO region. In 1987 (Hill, 1989), a single focus was discovered in eastern England (under eradication); several more foci have been found in the same area of the UK since. The virus is absent from Ireland, and also from the Nordic countries except Sweden, where BNYVV has been reported; however, other soil-borne viruses may be responsible for rhizomania symptoms (Lindsten, 1989).
EPPO region: Austria, Belgium, Bulgaria, France, Germany, Greece, Hungary, Italy, Netherlands, Poland (few reports) Romania, Slovakia (Reporting Service 528/02), Spain, Sweden, Switzerland, UK (very limited distribution; under eradication), Russia, Yugoslavia.
Asia: China, Japan.
North America: USA (California).
This distribution list replaces all previous published EPPO Distribution Lists on beet necrotic yellow vein furovirus!

Source: EPPO Secretariat, Paris (1994-03)

94/065 **EMPNXX...**Genetic relatedness between elm phloem necrosis MLO and strains of elm yellows MLO from Italy

Experiments were carried out in the USA (US) in order to compare the relatedness of strains of elm phloem necrosis MLO (EPPO A1 quarantine pest) from the US and MLO strains from Italy (IT) causing a yellows disease on *Ulmus* spp. Nucleic acid dot hybridization was applied to study the genetic relatedness and it was found that American strains from *Ulmus americana* and Italian strains from *U. parvifolia* are closely related. The data suggests the existence of a unique elm yellows MLO strain cluster which is only distantly related to the aster yellows MLO strain cluster. First experiments in using PCR for the detection of elm phloem necrosis revealed the presence of various strains of the MLO in North America that were distinct from a strain of elm yellows MLO present in Italy.

Source: Lee, I.-M.; Davis, R.E.; Sinclair, W.A.; DeWitt, N.D.; Conti, M. (1993) genetic relatedness of mycoplasma-like organisms detected in *Ulmus* spp. in the United States and Italy by means of DNA probes and polymerase chain reactions.
Phytopathology 83, 829-833

94/066 **GVFDXX...**Attachment of grapevine flavescence dorée MLO to insect extracts

EPPO Reporting Service 94/027 (1994 No. 2) presented a misleading interpretation of the results of Lefol et al (1993) on interaction between grapevine flavescence dorée MLO (EPPO A2 quarantine pest) and various *Homoptera*. The interactions were studied in an in vitro system, in which the MLO has the possibility to bind to extracts of whole insects or parts of insects, or to cryosections, and is than detected serologically in a so-called 'double blot' system. In such a system, the MLO binds to extracts of *Scaphoideus titanus*, the known vector of the MLO on *Vicia faba* test plants. That MLO also binds to several other *Homoptera* (*Psylla pyricola*, *Ziginidia scutellaris*, *Muellerianella extrusa* and *Litemixia pulchripennis*) which are not known to be carriers or vectors of the disease and which indeed cannot survive on broad bean or grapevine.
This research has significance especially for better understanding of the specificity of vector ability for MLOs. Ability to bind the MLO (in salivary glands) is probably a necessary condition for vector ability, but it is certainly not a sufficient one.
The four insects cited are perhaps potential vectors of grapevine flavescence dorée MLO to an experimental host yet to be discovered, but they are not potential vectors of the MLO to grapevine.

Source: Lefol, C.; Caudwell, A.; Lherminier, J.; Larrue, J. (1993) Attachment of the flavescence dorée pathogen (MLO) to leafhopper vectors and other insects.
Annals of applied Biology 123, 611-622.

EPPO Secretariat, Paris (1994-03)

94/067 CRONCL...Production of uredinia and telia by *Cronartium coleosporioides*

Investigations were conducted in British Columbia, Canada, to study the impact of climatic conditions on the production of uredinia and telia on alternate hosts by *Cronartium coleosporioides* (EPPO A1 quarantine pest). *Aeciospores* from different locations of British Columbia were collected and inoculated on *Castilleja miniata*, an alternative host of the rust fungus. It was found that rust collected from dry areas did not produce uredia and may have lost the ability to do so. Rusts from wetter areas produced uredia or mixtures of uredia and telia. The authors suggested that the loss of the uredial stage may be in response to climates that are often unsuitable for the spread or survival of the rust on alternative hosts.

Source: Van Der Kamp, B.J. (1993) Production of uredinia and telia by stalactiform blister rust in British Columbia. **Canadian Journal of Botany 71, 519-521.**

94/068 **DIPDMA/DIPDMC...*Stenocarpella macrospora* and *S. maydis* present in Honduras**

Incidence and yield losses of different maize cvs. due to maize ear rot have been recorded in Honduras between 1980-88. In 1987 a survey was carried out collecting more than 1000 maize ear samples from 97 localities in 9 provinces of Honduras. The following pathogens were found to cause maize ear rot in Honduras: *Stenocarpella maydis* (EPPO A2 quarantine pest), *S. macrospora* (EPPO A2 quarantine pest), *Gibberella zeae*, *G. fujikuroi*, *Cladosporium* sp., *Nigrospora* sp., *Penicillium* sp. and *Aspergillus* sp. *Stenocarpella maydis*, *Gibberella zeae* and *G. fujikuroi* were the most important .

Source: Fernandez, H.R. (1990) Identification of the causal organisms of maize (Zea mays L.) ear rot in Honduras.
Ceiba 31(1), 15-20.

94/069 **DIPDMC...EPPO Distribution List for *Stenocarpella macrospora***

Due to the new record of *Stenocarpella macrospora* (EPPO A2 quarantine pest) from Honduras the distribution of this fungus must be changed. New information from Austria, Bulgaria, Ecuador and Taiwan is also added from the latest round of updating of the PQR data base.

EPPO Distribution List: *Stenocarpella macrospora*

EPPO region: Austria (few reports). Found but not established in Italy, Romania and Russia. Bulgaria (intercepted only).
Asia: China, India, Indonesia, Malaysia, Nepal, Philippines, Taiwan.
Africa: Widespread in eastern, western and southern Africa. IAPSC (1985) reported the presence of the fungus in Benin, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Malawi, Nigeria, Sierra Leone, South Africa, Tanzania, Togo, Zambia and Zimbabwe.
North America: USA (from east coast to mid-west states).
Central America and Caribbean: Costa Rica, Cuba, El Salvador, Honduras and Jamaica.
South America: Brazil, Ecuador.
Oceania: Australia (Queensland, New South Wales).

This distribution list replaces all previous published EPPO Distribution Lists on Stenocarpella macrospora!

Source: EPPO Secretariat, Paris (1994-03)

94/070 **DIPDMA...**EPPO Distribution list for *Stenocarpella maydis*

Due to the new record of *Stenocarpella maydis* (EPPO A2 quarantine pest) from Honduras, according to EPPO information the first record of this fungus from Central America and the Caribbean, the distribution of this disease should be changed.
New information concerning Austria, Bulgaria, China, Ecuador, Portugal and Taiwan is also added from the latest round of updating of the PQR data base.

EPPO Distribution List: *Stenocarpella maydis*

EPPO region: Locally established in Austria, Czechoslovakia and Italy; Portugal; found but not established in France and USSR. Bulgaria (intercepted only) and Portugal (unconfirmed).

Asia: China, India, Iran, Taiwan.

Africa: Kenya, Malawi, Nigeria, South Africa, Tanzania, Zaire, Zimbabwe.

North America: Canada, Mexico, USA.

Central America and the Caribbean: Honduras

South America: Argentina, Brazil, Colombia, Ecuador.

Oceania: Australia.

This distribution list replaces all previous published EPPO Distribution Lists on Stenocarpella maydis!

Source: EPPO Secretariat, Paris (1994-03)

94/071 GLOMGO...*Glomerella gossypii* present in China

According to a report in the Journal of Shanghai Agricultural College symptoms of cotton anthracnose, caused by *Glomerella gossypii* (EPPO A2 quarantine pest) were observed in Shanghai, China. The disease symptoms appeared late August and September and the disease severity was related to the age of the cotton boll. Rainfall was recorded to be the main environmental factor influencing the disease.

Source: Zhang, D.; Zhang, J.Q. (1993) Epidemics of cotton boll anthracnose in Shanghai. **Journal of Shanghai Agricultural College 11(1), 51-55.**

94/072 GLOMGO...EPPO Distribution List for *Glomerella gossypii*

Due to the new record of *Glomerella gossypii* (EPPO A2 quarantine pest) from Shanghai, China, the distribution list of this quarantine pest needs to be modified.

EPPO Distribution List: *Glomerella gossypii*

G. gossypii, which is probably indigenous to America, now occurs in most cotton-growing areas throughout the world but tends to be localized in the higher rainfall areas.

EPPO region: Locally established in Romania; reported from but not established in Bulgaria, Italy, Russia, Spain and Tunisia.

Asia: Widespread in south-east Asia but not present in the Near East. Bangladesh, China, Taiwan. The organism has been recorded from Armenia, Azerbaijan and Georgia, but is not established there.

Africa: Widespread south of the Sahara. Côte d'Ivoire, South Africa and Zimbabwe. The organism has been recorded from Tunisia, but is not established there.

North America: Mexico, USA (general in south-eastern and Gulf States to eastern Texas and Oklahoma; also Hawaii, Kentucky, Missouri, Tennessee).

Central America and Caribbean: Widespread. Cuba, Haiti, Jamaica, Puerto Rico, Trinidad and Tobago.

South America: Widespread. *Colletotrichum gossypii* var. *cephalosporioides* reported at least from Brazil and Paraguay. Further records from Ecuador and Guyana.

Oceania: Australia (not present in Queensland), Guam.

This distribution list replaces all previous published EPPO Distribution Lists on Glomerella gossypii!

Source: **EPPO Secretariat, Paris (1994-03)**

94/073 GYMNAS...Biological characteristics of *Gymnosporangium asiaticum* f.sp. *crataegicola*

Experiments carried out at the Shenyang Agricultural University in China dealt with the determination of biological characteristics of *Gymnosporangium asiaticum* f.sp. *crataegicola* (EPPO A1 quarantine pest). It was found that basidiospores were formed when telia absorbed water and gelatinized for one hour, with a maximum formation after 24 hours. The germination of teliospores took place in a temperature range of 5° - 35° C with an optimum temperature between 10° to 25° C. Basidiospores germinated between 5° - 25° C with an optimum at 15° - 25° C. The survival of telia was limited to 60 d at room temperature and four months at 5° C. Teliospores and basidiospores did not survive dry conditions and died within 2 days.

Source: Wang, K.; Bai, J.K.; Li, D.H.; Deng, G.Y. (1993) Identification and biological characteristics of *Gymnosporangium asiaticum Miyabe ex Yamada* f. sp. *crataegicola* infecting hawthorn.
Acta Phytopathologica Sinica 23, 187-192.

94/074 **FRANOC/IMNSXX...**Interactions between *Frankliniella occidentalis* and impatiens necrotic spot tospovirus

Experiments in Oregon (US) were conducted to investigate the influence of the presence of impatiens necrotic spot tospovirus (potential EPPO A2 quarantine pest) in *Frankliniella occidentalis* (EPPO A2 quarantine pest) on its survival, development and reproduction. It was found that western flower thrips which were exposed as larvae to virus-infected food had a lower survival rate, a slower development and a less successful reproduction than thrips which were fed with uninfected food.

Source: DeAngelis, J.D.; Sether, D.M.; Rossignol, P.A. (1993) Survival, Development and Reproduction in western flower thrips (*Thysanoptera*: *Thripidae*) exposed to impatiens necrotic spot virus. **Environmental Entomology 22, 1308-1312.**

94/075 **FRANOC/TMSWXX..**Tomato spotted wilt tospovirus and *Frankliniella occidentalis* found in Crete (GR)

Frankliniella occidentalis (EPPO A2 quarantine pest) and tomato spotted wilt tospovirus (EPPO A2 quarantine pest) have been found on the Greek island of Crete (EU). Severe outbreaks of tomato spotted wilt tospovirus were observed in pepper and tomato crops grown under plastic tunnels in the eastern parts of the island. The vector, *F. occidentalis*, was found in high numbers in the infected areas. This finding of *F. occidentalis* also presents the first record of this pest in Greece.

Source: Volvas, C.; Avgelis, A. (1994) Infezioni da TSWV tospovirus su pomodoro e peperone nell'isola di Creta. **Informatore Fitopatologico 44; 55-56.**

94/076 LASPPR...Cydia prunivora not present in India

In course of the joint EPPO/CABI project on collecting data on the distribution of quarantine pests for the Commission of the European Community (CEC) it has been revealed that *Cydia prunivora* (EPPO A2 quarantine pest) is not present in India. The record in "*Quarantine Pests for Europe*" is, therefore, an error. The cited article only refers to the use of *Cydia prunivora* pheromones.

Source: **EPPO Secretariat, Paris (1994-03)**

94/077 LASPPR...EPPO Distribution List for *Cydia prunivora*

Due to the non-occurrence of *Cydia prunivora* (EPPO A1 quarantine pest) in India the distribution of this pest is as follows:

EPPO Distribution List: *Cydia prunivora*

C. prunivora is indigenous on wild *Crataegus* spp. in eastern North America (north-eastern states of USA and adjoining provinces of Canada) and has spread onto fruit trees in other parts of North America (western Canada and USA) and Asia.

EPPO region: Absent.

Asia: China (north-east China, since 1927).

North America: Canada, USA.

This distribution list replaces all previous published EPPO Distribution Lists on Cydia prunivora!

Source: **EPPO Secretariat, Paris (1994-03)**

94/078 **METHYL BROMIDE...**News on methyl bromide

Several news items on methyl bromide its environmental impacts and possible replacement fumigants have been published lately.

NASA (National Aeronautics and Space Administration of the United States of America), the agency which had undertaken the original study on the impacts of methyl bromide on the ozone layer in 1992 which lead to the consideration of methyl bromide under the Montreal Protocol, is reconsidering its evaluation of methyl bromide as a ozone depleter. The significant influence of methyl bromide emissions from the oceans and car exhausts were not considered in the original study. A revision of the methyl bromide ozone depletion potential is expected.

EPA (Environmental Protection Agency of the United States of America) has issued a final rule adding the fumigant to the list of ozone-depleting substances to be regulated under the Clean Air Act. Production and consumption of methyl bromide is to be eliminated from 2001-01-01, one year later than originally proposed in order to allow more time for the development of alternatives.

CSIRO, Australia's science agency, claims it has developed a new fumigant which is toxic to beetles, mites, moths and fruit flies. According to the agency the fumigant, carbonyl sulphide, is environmentally acceptable and a possible replacement of methyl bromide.

Source: **Pesticide Outlook 1994-02, p. 7.**

94/079 PUBLICATION....Identification of seedborne fungi

Seeds of sorghum, pearl millet, finger millet chickpea, pigeonpea and groundnut are known to to harbour over 62 seedborne fungi belonging to 37 genera. In this publication, an attempt has been made to help to identify these fungi usually observed during seed health tests conducted for phytosanitary certification. The publication provides descriptions and illustrations of 45 seedborne fungi, with brief information of the diseases caused by them, methods of seed transmission, detection, symptoms on the seed, morphological characteristics of the fungi, quarantine importance and control measures to eradicate seedborne inoculum and to prevent inadvertent introductions. Microphotographs are included to help identify the fungi. A world list of seedborne diseases is also given to help regulatory authorities formulate policies involving seedborne fungi.
The EPPO Secretariat believes that the publication can be considered as a useful guide for plant quarantine laboratories.

"A picturial guide to the identification of seedborne fungi of sorghum, pearl millet, finger millet chickpea, pigeonpea and groundnut."
by
AHMED, K.M.; RAVINDER REDDY, Ch.

Information Bulletin No. 34, 1993
Patancheru, A.P. 502 324, India: International Crops Research Institute for the Semi-Arid Tropics.
ISBN 92-9066-251-4
Order Code: IBE 034

Source: **EPPO Secretariat, Paris (1994-03)**

94/080 PUBLICATION...Identification and detection methods for plant pathogenic fungi

"Modern Assays for Plant Pathogenic Fungi" is the title of a new book dealing with the identification, detection and quantification of plant pathogenic fungi. The book provides both the theoretical background and step by step protocols for recommended methods. The book is based on papers presented at a conference held in Oxford 1993-03 under the BRIDGE-COST-88 programme developed by the CEC (Commission of the European Communities). The book can be regarded as very helpful for persons involved in routine testing of plants for quarantine reasons.

"Modern Assays for Plant Pathogenic Fungi: Identification, Detection and Quantification"
Edited by A. Schots, F.M. Dewey and R. Oliver

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