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<u>94/001</u>

NEW PEST/DIABVI...First record of *Diabrotica virgifera* in Europe

The EPPO secretariat has been informed that <u>Diabrotica virgifera virgifera</u> (Coleoptera: Chrysomelidae) commonly known as the western corn rootworm has been introduced into Serbia (YU). The pest was found in a small field in the surrounding area of Belgrade International Airport in 1992. It is, therefore, assumed that the pest was introduced via air transport. The identification of <u>D. virgifera virgifera</u> was confirmed by Dr J. Krysan, National Programme Manager of the Laboratory for Insect Systematics in Beltsville (US). The pest is considered to be very harmful to maize and was previously recorded to occur in North America only. Observations in Serbia showed that the pest is extremely damaging and that it covers large distances relatively quickly. More detailed studies in summer 1993 showed that the pest had spread fast. It has spread from the Burcin Plateau to the northwest into Lower Srem crossing both the Sava and Danube rivers. Currently Serbian plant protection authorities are investigating means to control and eradicate the pest.

Source:

Maize Research Institute, Zemun Polje (1993-11)

Baca, F. (1993) New member of the harmful entomofauna of Yugoslavia. Report at the "XXI Yugoslavian Entomological Conference", Belgrade, 1993-11-17/18.

94/002 NEW PEST...Marginal chlorosis of strawberries

It was reported in Reporting Service 93/104 (1993, No. 6) that a new bacterial disease of strawberries had been appearing in the European Union, namely in France and in Spain. Further information on this pest has now been published.

In 1990, symptomatic plants were seen in 38 nurseries: over a million plants, of 59 cultivars, representing 35 % of those nurseries' production. Planted out in production fields, this material showed 20 % infection on average in 1991, reacting 90 % on some plots. Main losses occur due to a reduction of sizes of fruits, but not the reduction of number of fruits produced by the plant.

Symptoms of the disease resemble those caused by strawberry mild yellow edge virus and Australian mycoplasma yellows. In nursery plants the first symptoms can be observed in July when leaflets show a red discoloration which starts from the leaf margin and progresses towards the midribs; the leaves develop a cup-like shape. New leaves are reduced in size up to 10% of the normal size and show marginal chlorosis which is 1-2 mm wide. Necrosis of the root system starts at the tip and progresses further towards the internal crown, which stays, however, normal in size and shape. In fruit production the disease can be observed first on young leaves which develop marginal chlorosis and which eventually extends to all leaves of the plant. Leaves are smaller and cup-shaped. The number of fruit is not affected, but the size of them is reduced and they are in general deformed, purple red, sour and very soft rendering them unmarketable. The disease starts on individual plants at an random distribution in the field and spreads to foci in summer. In cases were plastic tunnels were used all plants were infected by the end of the season.

The causal agent, a bacterium like organism (BLO) was observed by electron microscopy to be present in the phloem of affected plants. It has a diameter of 0.2-0.27 μ m and a length of 4 μ m.

The French authors claim to have observed the disease in Spain (Castilla Léon area) as early as 1984, but this observation remains subject to proper confirmation.

Source:

Nourrisseau, J.G.; Lansac, M.; Garnier, M. (1993) Marginal chlorosis, a new disease of strawberries associated with a bacteriumlike organism. **Plant Disease** 77, 1055-1059.

94/003 NEW PESTS...Introduced insects of the Mediterranean area with a potential for spread

Professor E. Tremblay, of the Dipartimento di Entomologia e Zoologia Agraria, Università di Napoli (Portici), Italy, has in several articles reviewed the insects which have been introduced into the Mediterranean area in the last few decades and which present a continued risk of further spread, outdoors or under glass (Tremblay, 1988, 1991). Many of these already feature in the EPPO quarantine lists, or else in the Annexes of Directive 77/93 of the European Union. Others used to appear in these regulations. Others have previously been mentioned in the EPPO Reporting Service. We summarize here a list of other exotic species, from various parts of the world, which have gained a foothold in the Mediterranean and could spread further. Not all are of the same importance, but all present some interest as introduced pests. Additional details have been found by consulting CABPESTCD.



Pests introduced from America

<u>Allococcus inamabilis</u> (Hambleton) (Homoptera: Coccidae)(= <u>Planococcus vovae</u>), from South America, introduced into Italy and Spain (Islas Canarias), on cypress.

<u>Dasineura gleditchiae</u> (Osten Sacken) (Diptera: Cecidomyiidae), from North America, introduced into Italy, Switzerland and UK, on <u>Gleditsia</u>.

<u>Epitrix hirtipennis</u> (Melsheimer) (Coleoptera: Chrysomelidae), tobacco flea beetle, a North American species first reported for Europe in tobacco fields northeast of Napoli in 1984, progressing in central and southern Italy. See Sannino & Balbiani (1990) *Informatore agrario* 46, suppl. 13, 17-20. This introduction is causing continuing problems.

<u>Glischrochilus quadrisignatus</u> (Say) (Coleoptera: Nitidulidae), picnic beetle, a pest of small fruits and vegetables, from USA, introduced into Italy (1990) and Moldavia. There is some doubt about its potential for establishment.

<u>Graphocephala fennahi</u> (Young) (Homoptera: Cicadellidae), from North America, introduced into Northern Europe (France, Germany, UK) many years ago, on rhododendron. It vectors the pathogen <u>Pycnostysanus azaleae</u>. Recently introduced into Italy.

<u>Hypogeococcus festerianus</u> (Lizer & Trelles) (Homoptera: Pseudococcidae), from South America, introduced into Italy (Liguria), on cactus. This is one of a group of cactus mealybugs fairly recently introduced into Europe (see other examples below).

<u>Nearctaphis bakeri</u> (Cowen) (Homoptera: Aphididae), from North America, introduced into Italy, on clover.

Ovaticoccus agavium Douglas (Homoptera: Eriococcidae), from USA, introduced into Italy, on Agave.

<u>Peliococcus serratus</u> (Ferris) (Homoptera: Pseudococcidae), from Canada and USA, introduced into Italy, on beech.

<u>Pseudococcus affinis</u> (Maskell) (Homoptera: Pseudococcidae) (= <u>P. obscurus</u>), from North America and Chile, introduced into Italy and Spain (Islas Canarias), on many hosts.

<u>Rhizoecus cacticans</u> (Hambleton) (Homoptera: Pseudococcidae), from USA, introduced into Denmark, Hungary, Italy (Sicilia), on cactus.

<u>Spilococcus cactearum</u> (McK.) (Homoptera: Pseudococcidae), from USA, introduced into Denmark, Italy, on cactus.

Pests introduced from Asia and Eastern Europe

<u>Acaudaleyrodes citri</u> (Pr.H.) (Homoptera: Aleyrodidae), a whitefly recorded in Cyprus and Israel, on citrus.

<u>Brachycorynella asparagi</u> Mordvilko (Homoptera: Aphididae), asparagus aphid, spreading into Italy from the east. See Coceano, P.G. (1989) Un nuovo pericolo per l'asparagicoltura italiana. *Informatore Agrario* no. 24, 73-74. This pest has also appeared in the late 1980s and caused problems in France, Germany and Spain. It was introduced into USA in the 1980s and has spread extensively.

<u>Ceroplastes japonicus</u> Green (Homoptera: Coccidae), tortoise wax scale, recently introduced into Italy, also in Russia (where it is rated a quarantine pest), from SE Asia.

<u>Chilo suppressalis</u> (Walker) (Lepidoptera: Pyralidae), on rice, a SE Asian pest only present in the Mediterranean basin in the Iberian peninsula and in France.

<u>Coccura comari</u> (Kunow) (Homoptera: Coccidae), in Hungary and Poland, introduced into Italy, on Rubus.

<u>Coccus pseudomagnoliarum</u> Kuw. (Homoptera: Coccidae), a Japanese citrus pest known only in the eastern Mediterranean.

Myiopardalis pardalina (Bigot) (Diptera: Tephritidae), Baluchistan melon fly, a Middle Eastern pest of cucurbits known only in the eastern Mediterranean.

Ophiomyia phaseoli (Coq.) (Diptera: Agromyzidae), a legume pest of the Old World tropics, known only from the eastern Mediterranean.

<u>Phyllocnistis citrella</u> Stainton (Lepidoptera: Phyllocnistidae), citrus leaf miner, approaching the Mediterranean from the Middle East.

<u>Pterochloroides persicae</u> (Kholodk.) (Homoptera: Aphididae), clouded peach stem aphid or giant brown bark aphid, from Asia (e.g. Lebanon, Russia, Turkmenistan), introduced into Italy in the 1970s, also in Egypt, Romania (recent introduction), Tunisia (since 1984), Yugoslavia, on peach and other <u>Prunus</u>. The introduction of this pest, which is of significant economic importance, seems to have passed unnoticed in plant quarantine circles.



<u>Rhodococcus bulgariensis</u> (Wunn) (Homoptera: Coccidae), spherical rose scale, from Bulgaria, Hungary, introduced into Italy in the 1970s, on rose.

Pests introduced from Oceania

Acizzia acaciaebaileyanae Fr. (Homoptera: Psyllidae), an Australian pest of acacia introduced into Italy in the 1980s.

<u>Acizzia uncatoides</u> Fer. & Kl. (Homoptera: Psyllidae), an Australian and New Zealand pest of acacia, introduced into France, Italy, Israel, Spain (Islas Canarias) and UK in the 1980s.

<u>Ctenarytaina eucalypti</u> (Maskell) (Hemiptera: Psyllidae), from Australia, on eucalyptus. See also Cadahia, D. (1986) *Bulletin OEPP/EPPO Bulletin* 16, 265-283.

<u>Quadristochella eucalypti</u> (Timberlake) (Hymenoptera, Eulophidae), a seed-destroying pest of eucalyptus, recorded for the first time in Europe in southern Greece. Georgevits, R.P. (1981) *Dasikon Ereunon* 2 (4), 5-14.

Pests introduced from Africa

Inglisia lounsburyi (Homoptera: Coccidae), a South African pelargonium pest found near Napoli (IT). No further consequences.

<u>Mycetaspis personata</u> Comstock (Homoptera: Diaspididae), masked scale, an Egyptian pest of many hosts which threatens glasshouse crops in Europe.

<u>Rastrococcus invadens</u> Williams (Homoptera: Pseudococcidae), a SE Asian species expanding in West Africa and threatening Europe. See example Moussa, J.B. & Matile-Ferrero, D. (1988) Sur la présence du nouveau ravageur <u>Rastrococcus invadens</u> en République populaire du Congo. Bulletin de la Société entomologique de France 93 (2), and many other recent references on its importance in Africa. Note that this pest has not yet appeared in the Mediterranean area.

Pantropical pests introduced into the Mediterranean area

<u>Contarinia sorghicola</u> (Coquillett) (Diptera: Cecidomyiidae), sorghum midge, pantropical on sorghum, and so far only recorded in the Mediterranean basin in France and Italy.

<u>Dysmicoccus brevipes</u> (Homoptera: Pseudococcidae), pineapple mealybug, in Israel, Italy and Spain (Islas Canarias), threatens ornamental Bromeliaceae in glasshouses in Europe.

<u>Ferrisia virgata</u> (Cockerell) (Homoptera: Pseudococcidae), striped mealybug, a potential pest of glasshouse ornamentals present in the Mediterranean zone only in Egypt.

<u>Pentalonia nigronervosa</u> Coquerel (Homoptera: Aphididae), banana aphid, on ornamental Musaceae in large glasshouses in Europe (e.g. in Denmark, Germany).

Sources

Tremblay, E. (1988) Avversità delle colture di recente o temuta introduzione. Parassiti animali: insetti. L'Italia Agricola, no. 1, 115-128.

Tremblay, E. (1991) New entomological problems in the Mediterranean basin and possibilities of their confrontation. *Proceedings of the 3rd National Entomological Congress*, pp. 65-72. Thessaloniki, Greece.



94/004

FRANOC/AU...First record of Frankliniella occidentalis in Australia

<u>Frankliniella occidentalis</u> (EPPO A2 quarantine pest) was first detected on a mixed flower farm at Munster, on the outskirts of Perth, Western Australia (AU) during 1993-05 and has since been confirmed on 12 properties in the immediate area. Because of its wide distribution eradication is not considered feasible by Australian Plant Protection Authorities. So far, Western flower thrips has not been detected in other states despite extensive surveys, and it has not spread beyond the vicinity of Perth. Surveys and quarantines are still in place and will continue. To limit the spread of the pest following action plan has been taken:

- quarantine of properties and spraying of crops on the infested land
- imposition of quarantine barriers on the movement of flowers and vegetables interstate
- conditions for the interstate movement of produce being harmonized throughout a national interstate regulatory committee.

Source:

Australian Quarantine and Inspection Service, Canberra (1993-11)



94/005 FAO/IPPC...Quarterly report of the IPPC secretariat

The IPPC secretariat has published its first quarterly report on its activities and accomplishments for July, August, September 1993. These will be produced every three months to describe the Secretariat's activities. This is available to any FAO member country or regional organization upon request. If further information is required, please contact Ms Ilona deBorhegyi of the Secretariat.

The activities of the Secretariat are listed under the following headings:

- 1. Phytosanitary Standards
- 2. Information Management
- 3. IPPC Development
- 4. Technical Support
- 5. Financial Management and IPPC Reporting

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Source:

IPPC Secretariat, Rome (1993-11)



94/006

CSGXXX/SY...Citrus greening bacterium not present in Syria

It was reported in EPPO Reporting Service 93/196 (1993, No.11) that citrus greening bacterium (EPPO A1 quarantine pest) has been listed in the report on "Citrus pest problems and their control in the Near East region" (publisher: FAO/Regional Office of the Near East) as being present in Syria. The EPPO secretariat has now been informed by the Regional Office for the Near East of FAO that the record of citrus greening for Syria in the report is erroneous and that the disease is not present in the country.

Source:

FAO, Regional Office for the Near East, Cairo (1993-11)



94/007 TMSWXX/IL...Tomato spotted wilt tospovirus found in Israel

According to a statement by the Department of Plant Protection and Inspection of the Ministry of Agriculture of Israel, tomato spotted wilt tospovirus (potential EPPO A2 quarantine pest) has been found on tomatoes, lettuce and asters in a few places in the country. The pest is not considered to be established, yet and control measures to control the spread and eradicate the disease are currently carried out.

Source:

Plant Protection Service, Bet Dagan (1993-11)



94/008

CERAFP..Transmission and survival of Ceratocystis fimbriata f.sp. platani

Experiments carried out in France confirmed the transmission of <u>Ceratocystis fimbriata</u> f.sp. <u>platani</u> (EPPO A2 quarantine pest) between adjacent trees by root grafts. Studies on the survival of <u>C. fimbriata</u> f.sp. <u>platani</u> showed that the pathogen can survive for at least than 27 months in large chunks of wood, for at least 8 months in sawdust and endoconidia of the fungus survived for about 6 months in the soil. The authors concluded, therefore, that planting plane trees in soils where diseased trees have already been planted presents a serious risk.

Source:

Grosclaude, C.; Olivier, R.; Romiti, C. (1993) Chancre coloré du

platane: Transmission et survie hypogées de l'agent responsable.

Phytoma No. 455, 1993-11, 57-59



94/009

FUSAAL...Taxonomy of Fusarium oxysporum f.sp. albedinis

The authors of the work cited in Reporting Service 93/144 stress to the EPPO Secretariat that genetic homogeneity is found among <u>Fusarium oxysporum</u> isolates obtained from date palm leaves (presumably f.sp. <u>albedinis</u>; EPPO A2 quarantine pest), not among all isolates from different parts of date palm. Some isolates from roots (and also from lucerne or from soil) belong to the same RFLP group as the leaf isolates. Others belong to other groups.

Source:

Fernandez, D. (pers. communication), 1993-11



94/010

BEMITA..Diseases of lettuce and kai choy induced by *Bemisia tabaci*

Bemisia tabaci (EPPO A2 quarantine pest) has been associated with a reduced growth, yellowing and stem blanching of lettuce and kai choy (Brassica campestris). As experiments in Hawaii (US) showed the weight of lettuce was reduced by 41% when the plants were colonized by 200 whiteflies and their offspring for three weeks. At the same colonization rate kai choy plants were reduced by 21%. Exposure to 50 whiteflies plus nymphs induced yellowing in lettuce, while exposure to > 10 whiteflies with nymphs induced stem and midvein blanching and leaf curling in kai choy. Weight losses in both plant species was positively correlated with the immature density. Infestation by adults alone did not result in weight loss or symptom development in kai choy. The removal of whiteflies and their offspring led to a recovery of the plants. The authors suggested that the recovery of the plants is an indication that the symptoms are caused by a toxin or toxins and that they are phytotoxic disorders.

Source:

Costa, H.S.; Ullman, D.E.; Johnson, M.W.; Tabashnik, B.E. (1993) Association between <u>Bemisia tabaci</u> density and reduced growth, yellowing and stem blanching of lettuce and kai choy.

Plant Disease 77, 969-972.



94/011

DACUSP/PK...Presence and control of *Bactrocera* and *Dacus* spp. in Pakistan

A study carried out in Pakistan lists the fruit fly species present in Pakistan and refers to investigations on the use of plant extracts as attractants for the fruit flies. <u>Bactrocera cucurbitae</u>, <u>Dacus ciliatus</u>, <u>B. dorsalis</u> and <u>B. zonatus</u> (all EPPO A1 quarantine pests) are present in the country and are, according to the authors, widely distributed causing millions of rupies of damage every year. In respect to the use of plant extracts as attractants the authors found that a leafextract of <u>Ocimum sanctum</u> proved to be a potent attractant and as effective as methyl eugenol.

Source:

Roomi, M.W.; Abbas, T.; Shah, A.H.; Robina, S.; Qureshi, S.A.; Hussain, H.H.; Nasir, K.A. (1993) Control of fruit-flies (*Dacus* spp.) by attractants of plant origin.

Anzeiger für Schädlingskunde, Pflanzenschutz, Umweltschutz 66,, 155-157.



94/012 NEW PESTS/AU...New pest introductions into Australia

EPPO has been informed by the Australian Quarantine and Inspection Service that beside the introduction of <u>Frankliniella occidentalis</u> (94/004) two further pests have been recently introduced into the country.

Spiraling whitefly, <u>Aleurodicus dispersus</u>, has been detected on Boigu Island in the Torres Strait infesting ornamentals in 1991. Eradication was not considered feasible, but it was decided to attempt control on Boigu Island by introducing the biological control agent <u>Encarsia haitiensis</u>. The agent which was introduced from Fiji during 1992 failed to establish. Further outbreaks of the pest have been detected on other Torres Strait islands and further introductions of the biological control agent are planned.

<u>Hibiscus erineum</u> mite, <u>Eriophyes hibisci</u>, has been reported from Southport, Elanora and Tweed Heads on the Queensland coast south of Brisbane in 1992. It was thought that the infestation was about 18 months old and could not be eradicated. Internal official regulations to prevent a further spread have been adopted by the plant protection authorities of Australia.

Source: Australian Quarantine and Inspection Service, Canberra (1993-11)



94/013

FRANOC...EPPO Distribution List for Frankliniella occidentalis

Due to the new record of *Frankliniella occidentalis* EPPO A2 quarantine pest from Australia the distribution of this pest is as follows:

EPPO Distribution List: Frankliniella occidentalis

<u>F. occidentalis</u> is indigenous to North America (Canada, Mexico, continental USA). It began to spread internationally about 1980 and has now been reported from countries in all continents of the world.

EPPO region: Austria, Bulgaria, Cyprus, Czechoslovakia, Estonia, European Union (BE, DE, DK, ES, FR, GB, IE, IT, NL, PT), Finland, Hungary, Israel, Malta, Poland, Romania, Sweden, Switzerland.

Asia: Cyprus, Israel, Japan.

Africa: Kenya, Réunion, South Africa.

North America: Canada, Mexico, USA (including Hawaii).

Central America and Caribbean: Costa Rica, Martinique.

South America: Colombia.

Oceania: Australia, New Zealand.

Source: EPPO Secretariat, Paris (1993-12)



94/014 THRIPL/AU...Update on the occurrence of Thrips palmi in Australia

EPPO has been informed by the Australian Quarantine and Inspection Service that <u>Thrips palmi</u> (EPPO A1 quarantine pest) was first detected in the Birkdale/Redlands area, southeast of Brisbane, Queensland (AU) on 1993-05-24 on capsicums. Previously, <u>T. palmi</u> was only known from Darwin and Katherine in the Northern Territory and interstate movement of produce from the area has been restricted. Because of its wide distribution eradication is not considered feasible. To prevent further spread the following action plan has been adopted:

- quarantine of infested properties and destruction of crops
- imposition of quarantines by other Australian States on the movement of vegetables from the infested area
- surveys for melon thrips in Queensland are continuing.

Source:

Australian Quarantine and Inspection Service, Canberra (1993-11)

94/015 THRIPL/GT...Thrips palmi not present in Guatemala

The OIRSA representative in Guatemala (Ing. M.F. Cano) informs EPPO that <u>Thrips palmi</u> (EPPO A1 quarantine pest) has not been recorded in that country. This refers to EPPO Reporting Service 93/017 (1993, No. 1) and 93/079 (1993, No. 4), in which it was noted that recent outbreaks in The Netherlands (now eradicated) occurred in nurseries which had imported or received <u>Ficus</u> from Guatemala.

EPPO is further informed that in a survey in Guatemala, of different ornamental <u>Ficus</u> spp., the only thrips found (on <u>Ficus</u> 'Nitidali') was <u>Gynaikothrips ficorum</u> (Marchal), identified at USDA, Beltsville (US). For information on this thrips see also Reporting Service 94/017.

Source:

OIRSA, Guatemala, 1993-12



94/016

THRIPL/FRANOC...Chemical control against Thrips palmi and

Frankliniella occidentalis

Experiments were carried out in Hawaii (US) to investigate possible control of <u>Thrips palmi</u> (EPPO A1 quarantine pest) and <u>Frankliniella occidentalis</u> (EPPO A2 quarantine pest) in orchids by field applications of insecticides and post-harvest insecticidal dips of flowers. It was found that insecticidal double dips of orchid blossoms (<u>Dendrobium</u> spp.) reduced the mixed flower infestation by <u>T. palmi</u> and <u>F. occidentalis</u> by more than 95%. Double dipping consisted of immersing an inflorescence for 3 min in insecticide with agitation followed by a 2h waiting period and a second 3 min immersion in insecticide. Four field applications of insecticides reduced the infestation by more than 90%. It is concluded and suggested by the authors that field applications of insecticides against <u>T. palmi</u> and <u>F. occidentalis</u> should be carried out only to keep the thrips populations under the threshold which is determined by blossom injury and to apply double insecticidal dips as a quarantine treatment.

Source:

Hata, T.Y.; Hara, A.H.; Hu; B.K.S.; Kaneko, R.T.; Tenbrink, V.L. (1993) Field spays and insecticidal dips after harvest for pest management of *Frankliniella occidentalis* and

Thrips palmi on orchids.

Journal of Economic Entomology 86, 1483-1489.

93/017 THRIPL/GYNAFI/GT...Description of Gynaikothrips ficorum

According to a recent report (see 93/015) the only thrips found in a survey of <u>Ficus</u> in Guatemala was not <u>Thrips palmi</u> (EPPO A1 quarantine pest), but <u>Gynaikothrips ficorum</u> (Marchal) (=<u>G. uzeli</u>). This species (the Cuban laurel thrips) occurs in many tropical countries. IIE Map No. 455 (1983) gives it in:

EPPO region: Malta, Israel, Italy (Sicilia), Portugal (Madeira), Spain (mainland and Islas Canarias)

Asia: Hong Kong, India, Indonesia, Israel, Malaysia, Singapore, Sri Lanka, Taiwan, Thailand

Africa: Algeria, Egypt, Libya

North America: Bermuda, USA (California, Florida, Hawaii) Central America and Caribbean: Barbados, Puerto Rico

South America: Brazil, Peru, Venezuela

A recent USDA description (data sheet 102, Entomology Section) adds: Colombia, Cuba, Dominican Republic, Ecuador, Guam, Nicaragua, Panama, El Salvador and USA (Texas). A search of CABPESTCD adds to the geographical distribution: Czech Republic, Italy (Sardegna), Netherlands and Japan. Guatemala can now also be added.

The US publication stresses that <u>Ficus retusa</u> is the preferred host, and all other <u>Ficus</u> spp. are resistant. It also describes the symptoms: leaf curling, followed by leaf fall causing unsightly litter below the plants. The thrips are also said to be annoying to man, and can inadvertently bite passers-by! Chemical or biological control is feasible. This thrips seems to have further spread potential in glasshouses in the EPPO region.

Source:

EPPO Secretariat, Paris (1993-12)



94/018

BURSXY/FI...Risk assessment of *Bursaphelenchus xylophilus* for Finland

A detailed risk assessment on the potential of <u>Bursaphelenchus xylophilus</u> (EPPO A1 quarantine pest) to be introduced and to establish in Finland has been presented in a dissertation by Jyrki Tomminen of the University of Helsinki. In his evaluation of the risk of introduction he identified at least three means by which <u>B. xylophilus</u> could disperse from contaminated wood products into Finnish forests:

- "1. "escaped" contaminated wood chips or green lumber could come into physical contact with the wood of dead trees, such as logs or cut stumps, and such contact may result in the successful transmission of the nematodes;
- 2. green imported wood may harbour living vector beetles of different life stages which could well complete their life cycles in Finland and leave the wood with nematodes in their tracheae;
- 3. "escaped" nematode-contaminated wood chips may end up trapping native vector insect adults that happen to be flying in places were chips are being handled and processed. As a result these insects could then spread the nematodes in the forest."

Concerning establishment potential in Finland he concluded that even if the rate of reproduction of <u>B. xylophilus</u> may be lower in Finland than in most of North America, due to climatic differences, there is no doubt that the nematode could survive in the country and that it could be vectored (although possibly less efficiently) by Finnish <u>Monochamus</u> spp.

Source:

Tomminen, J. (1993) An assessment of the pinewood nematode and related species in wood products and their potential risk to Finnish forests. Dissertation at the University of Helsinki, Department of Applied Zoology, Report No. 18., 1993



94/019

HETDSP...Globodera pallida and G. rostochiensis not present in Yugoslavia (YU)

<u>Globodera pallida</u> and <u>G. rostochiensis</u> (EPPO A2 quarantine pests) are reported not present in former Yugoslavia despite information published in earlier EPPO Publications (e.g. EPPO Publications Series B No.65, of 1970). The earlier reports of the presence of potato cyst nematodes in the country were most probably based on a misidentification of <u>G. achilleae</u>. This information is backed by a survey carried out in 1989/1991 at 64 potatogrowing locations, by Krnjaic & Krnjaic (1991), who declare in strong terms that these nematodes do not occur in Yugoslavia. In consequence, the EPPO record in "Quarantine Pests for Europe" can be considered erroneous.

Additionally EPPO has received notifications from the Plant Protection Services of Slovenia and Croatia that potato cyst nematodes are not present in their countries.

Source:

Plant Protection Service of Croatia (1993-12)

Plant Protection Service of Slovenia (1993-11)

Krnjaic, D.; Krnjaic, S. (1991) Investigation on presence of potato

nematodes in Yugoslavia.

Zastita-Bilja 42: 4, 257-266



94/020

HETDPA/HETDRO...Distribution of Globodera rostochiensis and G.

<u>pallida</u>

The EPPO Secretariat received the notification that <u>Globodera rostochiensis</u> and <u>G. pallida</u> (EPPO A2 organisms) are not present in former Yugoslavia and especially Croatia and Slovenia. The EPPO Distribution List for <u>G. rostochiensis</u> and <u>G. pallida</u> has to be revised accordingly.

Information received during the recent validation of EPPO's PQR data base has also been incorporated.

EPPO Distribution List: Globodera rostochiensis

EPPO region: Algeria (potential EPPO member), Austria, Belarus (potential EPPO member), Belgium, Bulgaria, Cyprus, Czechoslovakia, Denmark (including Faroe Islands), Egypt (potential EPPO member), Estonia (potential EPPO member), Finland, France, Germany, Greece (mainland and Kriti), Hungary (3 localities only), Iceland, Ireland, Israel (found on only two occasions in 1954 and 1965 in a small area in the Sharon region; successfully eradicated), Italy, Latvia, Lebanon (potential EPPO member), Lithuania (potential EPPO member), Luxembourg, Malta, Morocco, Netherlands, Norway, Poland, Portugal (including Madeira but not Azores), Russia (European), Spain (including Canary Islands), Sweden, Switzerland, Tunisia, Ukraine (potential EPPO member), UK (including Guernsey and Jersey; pathotype Ro1 only). Earlier reports from Yugoslavia are erroneous.

Asia: Cyprus, India (Kerala - Nilgiri Hills), Japan (Hokkaido only), Lebanon, Malaysia (unconfirmed), Pakistan, Philippines, Sri Lanka, Tajikistan.

Africa: Algeria, Egypt, Libya, Morocco (intercepted only), Sierra Leone, South Africa, Tunisia.

North America: Canada (only Newfoundland and Vancouver Island), Mexico, USA (New York - Long Island and several upstate locations; Delaware - eradicated).

Central America and Caribbean: Costa Rica, Panama.

South America: Throughout the high Andean region: Argentina, Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela.

Oceania: Australia (two outbreaks reported, one in Western Australia (1986), the other in Victoria (1991); both are being subjected to an official eradication programme), New Zealand, Norfolk Island.

EPPO Distribution List: Globodera pallida

EPPO region: Algeria (potential EPPO member), Austria, Belgium, Cyprus, Denmark (occurred on mainland in the past but now eradicated; Faroe Islands), Estonia (potential EPPO member), Finland (intercepted only), France, Germany, Greece (Kriti only), Iceland, Ireland, Italy, Luxembourg, Malta (isolated records), Netherlands, Norway, Portugal (excluding Azores), Russia, Spain (including Canary Islands), Sweden, Switzerland, Tunisia, UK (including Guernsey and Jersey).

Asia: Cyprus, India, Japan (unconfirmed), Malaysia (unconfirmed), Pakistan.

Africa: Algeria, Libya (unconfirmed), Tunisia.

North America: Canada (Newfoundland only).

South America: Throughout the high Andean region: Argentina, Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela. <u>G. pallida</u> apparently has a more northerly range than <u>G. rostochiensis</u>.

Oceania: New Zealand.

These lists replaces all previous EPPO Distribution Lists for <u>G. rostochiensis</u> and <u>G. pallida!</u>

Source: EPPO Secretariat, Paris (1993-12)