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Reporting

Service

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EPPO *Reporting Service*

94/170 **EPPO...New EPPO members - Albania, Croatia, Ukraine**

Three more governments have acceded to the EPPO Convention in recent months, these are Albania (AL), Croatia (HR) and Ukraine (UA). They are extremely welcome to the Organization. Total membership is now 38.

Source: Ministry of Foreign Affairs (FR)

94/171 **EPPO...Correction to be made to the EPPO Summary of the EU Phytosanitary Regulations**

Some words have accidentally been omitted from the EPPO Summary of the EU Phytosanitary Regulations in the section on Fruits and Vegetables. It is stated that a phytosanitary certificate is required for fruits of *Cydonia*, *Malus*, *Prunus* and *Pyrus* from non-EU countries whereas this is only required for **non-European countries**. This will be corrected in the next version of the EPPO Summary and we hope this has not caused any inconvenience.

Source: EPPO Secretariat, 1994-09

94/172 **ERWIAM...First report of *Erwinia amylovora* in Austria**

The EPPO Secretariat has recently been informed by the Austrian Plant Protection Service of the first occurrence of *Erwinia amylovora* (EPPO A2 quarantine pest) in Austria, in 1993. Infection of fireblight has been detected on two *Cotoneaster salicifolius* in the most westerly Province of Vorarlberg, at lake Constance, near the German border. An eradication programme is being carried out ; infected plants have been destroyed and surveys including field inspection and laboratory tests are being conducted.

Source: EPPO Secretariat, 1994-08.

Additional key words: new record.

94/173 **ERWIAM/ERWIST...Analysis of cellular fatty acids used as a taxonomic tool to differentiate *Erwinia* species**

The genus *Erwinia* has been divided into three clusters, respectively the *E. herbicola*, *E. amylovora* and the *E. carotovora* groups. By using gas-liquid chromatography techniques, the authors have studied separately the cellular fatty acids of *Erwinia* species belonging to the *Amylovora* group (*E. amylovora* (EPPO A2 quarantine pest), *E. nigrifluens*, *E. quercina*, *E. rubrifaciens*, *E. salicis* and *E. tracheiphila*), and the *Herbicola* group (*E. herbicola*, *E. ananas*, *E. stewartii* (EPPO A2 quarantine pest), and *E. uredova*). For each species several strains, grown on King's medium B agar during 1,3 or 6 days at 28 °C, have been analysed. It was found that the physiological age of the cells could affect fatty acid composition. However, within these two groups, the authors were able to establish dichotomous keys based on differences in cellular fatty acid composition, in order to differentiate the species. In addition, they could also identify changes in fatty acid composition which could readily distinguish *E. herbicola* and *E. stewartii* from *E. amylovora*. The authors concluded that analysis of cellular fatty acid can be used as a taxonomic tool to distinguish species of bacteria and as a confirmatory technique, but that further studies should be carried out on a wider number of strains for each *Erwinia* species.

Source:

Wells, J.M.; van der Zwet, T.; Hale, C.N. (1994) Differentiation of *Erwinia* species in the "*Amylovora*" group by class analysis of cellular fatty acids.
Journal of Phytopathology, 140 (1), 31-38.

Wells, J.M.; van der Zwet, T.; Butterfield, J.E. (1994) Differentiation of *Erwinia* species in the "*Herbicola*" group by class analysis of cellular fatty acids.
Journal of Phytopathology, 140 (1), 39-48.

Additional key words: taxonomy, identification methods.

94/174 **ERWICH...**Bacterial leaf rot of *Aloe vera* in Aruba caused by *Erwinia chrysanthemi*

A severe bacterial leaf rot has been observed in the island of Aruba (in the Caribbean) in 1992, on *Aloe vera*. Symptoms usually appear 7-10 days after heavy rains at the bases of outer leaves, showing dark green, water soaked areas. Under humid conditions, these dark green areas expend extremely rapidely, parenchymal tissues are completely changed into a slimy mass and swell due to gas formation. Finally, the whole plant is destroyed. By using biochemical tests and fatty acid analysis, the authors have shown that the causal agent of this disease is *Erwinia chrysanthemi* biovar 3 (EPPO A2 quarantine pest) and were able to reproduce these symptoms by inoculating the bacterium to healthy plants of *A. vera*. This is the first report of *Erwinia chrysanthemi* biovar 3 on *Aloe vera*, and for the EPPO Secretariat this is the first report of *E. chrysanthemi* in Aruba.

Source: de Laat, P.C.A.; Verhoeven, J.T.W.; Janse, J.D. (1994) Bacterial leaf rot of *Aloe vera* L., caused by *Erwinia chrysanthemi* biovar 3.
European Journal of Plant Pathology, 100 (1), 81-84.

Additional key words: new host plant, new record.

94/175 **IT...**Outbreak of *Pseudomonas syringae* pv. *avellanae* on hazelnut in Italy

Symptoms of severe dieback of hazelnut (*Corylus avellana*) have recently been observed in the Lazio region (Central Italy). The main symptoms are bud failure, leaf chlorosis and rapid withering of the leaves which remain attached on the twigs during summer, dark brown discoloration of bark and cambium, necrosis of the main roots and finally dieback of the plant. During the last five years, this disease has killed more than 1,800 adult trees in one orchard. The causal agent was identified as *Pseudomonas syringae* pv. *avellanae* (bacterial canker of hazelnut), which has been described first in Greece. This disease was reported for first time in Italy in the 1990s (RS 509/15, 1991), and these studies have shown that it presents differences in symptomatology with bacterial blight of hazelnut caused by *Xanthomonas campestris* pv. *corylina* (EPPO A2 quarantine pest) and the "seccume" disease, which have been respectively reported in Central and Northern Italy.

Source: Scortichini, M.; Tropiano, F.G. (1994) Severe outbreak of *Pseudomonas syringae* pv. *avellanae* on hazelnut in Italy.
Journal of Phytopathology, 140 (1), 65-70.

Additional key words: new record.

94/176 **SYMYEX/SYVBXX/SYCXXX...**Viruses of strawberry in China

The four following viruses are found in the major strawberry-growing areas in China (Hebei, Liaoning, Shandong, Jilin, Heilongjiang, Zhejiang, Jiangxi, Hubei and Shanxi Provinces): strawberry crinkle rhabdovirus (EU Annex II/A2), strawberry mild yellow edge disease (EU Annex II/A2), strawberry mottle virus, strawberry veinbanding caulimovirus (EPPO A1 quarantine pest). Heat treatments have been successfully developed to eliminate these viruses, but a system for the production of virus-free propagation material has not yet been established for commercial production. The information on the occurrence of strawberry crinkle rhabdovirus, strawberry mild yellow edge disease and strawberry veinbanding caulimovirus in China is new for the EPPO Secretariat.

Source: Wang, Q.; Tang, H. (1994) Strawberry culture in China. **Chronica Horticulturae, 34 (2), 4-6.**

Additional key words: new records.

94/177 **PSDMSO/THRIPL/APPPC...**New records of Moko disease and *Thrips palmi* in Asia

During the eighteenth Session of the Asia and Pacific Plant Protection Commission, member countries presented their phytosanitary situation, including the following new records:

1) Moko disease (*Pseudomonas solanacearum*, EPPO A2 quarantine pest) is present in Indonesia where it causes damage on 1742 ha of banana plantations.

2) Three new species of thrips have been found in Sri Lanka on foliage plants: *Gynaike* sp., *Thrips hawaiiensis* and *Thrips palmi* (EPPO A1 quarantine pest).

Source: Report of the eighteenth Session of the Asia and Pacific Plant Protection Commission, 1993-08-23/28, Beijing. FAO Regional Office for Asia and the Pacific, 69 p.

Additional key words: new records.

94/178 **VIRUSES/AL...**Virus diseases of sweet and sour cherry in Albania

A preliminary survey of virus diseases of sweet cherry (*Prunus avium*) and sour cherry (*Prunus cerasus*) has been carried, in 1993, in the most important cherry-growing areas of Albania (districts of Pogradec, Lolonjë; Gjirokastër, Vlorë, Kavajë and especially Korçë and Dibër). Visual observations were made in the field and samples were tested by mechanical transmission to herbaceous hosts and by serological tests (ELISA). Out of the 459 samples tested in the laboratory, 189 sweet (56 %) and 32 sour cherry (26 %) trees have been found infected by at least one of the following viruses: prune dwarf ilarvirus, apple chlorotic leaf spot trichovirus, prunus necrotic ringspot ilarvirus. In sweet and sour cherries, the predominant viruses are respectively apple chlorotic leaf spot trichovirus, prune dwarf ilarvirus and prune dwarf ilarvirus, prunus necrotic ringspot ilarvirus. It was also reported that prunus necrotic ringspot ilarvirus is nearly absent on sweet cherry. The authors stressed that there was a wide range of variation among cultivars. Results were always negative for apple mosaic ilarvirus, tomato ringspot nepovirus (EPPO A2 quarantine pest), raspberry ringspot nepovirus (EPPO A2 quarantine pest) and cherry leaf roll nepovirus.

Source: Digiaro, M.; Bici, I; Myrta, A. (1994) A survey on virus and virus diseases of sweet and sour cherry in Albania.
Phytopathologia mediterranea, 33 (2), 165-167.

94/179 **GFVDXX/IT...Grapevine yellows in Southern Italy (Apulia)**

As serious outbreaks of grapevine yellows ressembling those of flavescence dorée (EPPO A2 quarantine pest) were observed in Southern Italy (Apulia), investigations on the etiology and epidemiology of the diseases were carried out by field surveys, transmission trials and electron microscopy. It was found that yellows infection occurred throughout the most important grape-growing areas of Apulia (excepted the northern part of the region), especially on native cultivars but not on cv. Chardonnay which is increasingly cultivated. It was noted that symptomatic vines were very often situated on the edges of the vineyards and bait plants placed near symptomatic vines became infected, both suggesting that the diseases are spread by vectors. Several potential insect vectors of MLOs were captured in diseased vineyards, but *Scaphoideus titanus* (vector of grapevine flavescence dorée MLO) was never found. During transmission experiments with dodder, it was possible to transmit MLO-like bodies from infected vines to periwinkle. In electron microscopy, MLOs were observed in the phloem of artificially infected periwinkles, in naturally infected weeds and in one infected grapevine. The authors concluded that these grapevine yellows observed in Apulia should be classified as a Mediterranean yellows and not as flavescence dorée MLO, because of the absence of *Scaphoideus titanus* and the edge distribution of the infected plants, suggesting that the inoculum source came from outside the vineyard. In addition, it has previously been demonstrated (RS 93/178) that MLOs found on Apulian vines belong to the aster yellows and not to the elm yellows group (which include grapevine flavescence dorée MLO).

Source: Di Terlizzi, B.; Castellano, M.A.; Alma, A.; Savino, V. (1994) Present status of grapevine yellows in Apulia.
Phytopathologia mediterranea, 33 (2), 125-131.

94/180 MELMME...Report of an interspecific hybrid of *Melampsora medusae* and *M. larici-populina* in New Zealand

Studies were carried out in New Zealand on poplar rusts as an outbreak appeared in March 1991 on 'resistant' cultivars. Microscopic examination of urediniospores revealed that the causal agent shared morphological features of both *M. larici-populina* and *M. medusae* (EPPO A2 quarantine pest). Both rusts have been introduced into New Zealand from Australia. The authors thought that this 'new rust' could have arisen in Australia by hybridization between *M. larici-populina* and *M. medusae*. The host range of the hybrid rust is closer to *M. medusae*, as it does not attack *Populus nigra* (Lombardy poplar). However, the rust failed to overwinter, either on *Larix decidua* or on poplars in New Zealand. The authors concluded that this was the first report of an interspecific hybrid between two apparently separate *Melampsora* species pathogenic to poplars, which may be more closely related than thought before, and proposed to call it *M. medusae-populina* sp nov. Further studies are needed to obtain DNA fingerprints of the hybrid and its parents and field studies should be carried out in Australia to determine whether the hybrid is present.

Source: Spiers, A.G.; Hopcroft, D.H. (1994) Comparative studies of the poplar rusts *Melampsora medusae*, *M larici-populina* and their interspecific hybrid *M. medusae-populina*.
Mycological Research, 98 (8), 889-903.

Additional key words: new species.

94/181 **CERSPD/SCIRAC/SCIRPI...*Pinus* diseases in the tropics**

Brief surveys have been conducted from 1983-87 in many tropical countries, on foliage pathogens in *Pinus* plantations, research plots, nurseries and natural forests. In addition to visual observations, samples were collected for detailed analysis. The main pathogens studied were the following: *Mycosphaerella gibsonii* (EPPO A1 quarantine pest), *Mycosphaerella pini* (EU Annex II/A2), *Mycosphaerella dearnessi* (EPPO A1 quarantine pest), *Sphaeropsis sapinea* and various other foliage diseases.

Mycosphaerella gibsonii has been observed on 24 *Pinus* species, including new host records (*P. ayacahuite*, *P. clausa*, *P. greggii*, *P. pseudostrobus*, *P. rudis*). In addition, *M. gibsonii* is recorded for the first time in the following countries: Bangladesh, Jamaica, Kenya, Madacasgar, Nepal, Papua New Guinea, South Africa, Sri Lanka, Swaziland and Thailand. This suggests that this fungus is much more widely distributed in tropical and subtropical regions than previously thought.

Mycosphaerella pini has been found on 10 *Pinus* species in 12 countries of Africa, South America, Asia and the Caribbean: Ecuador, India, Jamaica, Kenya, Malawi, Nepal, Philippines, South Africa, Sri Lanka, Tanzania, Zambia, Zimbabwe. These are the first reports of *M. pini* in Nepal, Philippines, Sri Lanka and Zambia.

Mycosphaerella dearnessii was observed on 4 *Pinus* species in the USA and Colombia only. It is mostly associated with *P. radiata* in Colombia, and *P. taeda* and *P. palustris* in southern USA.

Sphaeropsis sapinea was observed on 21 *Pinus* species in 13 tropical countries and appears pantropical but is particularly common in Africa.

The author felt that records of *M. gibsonii* and *M. pini* from remote native blue pine (*P. wallichiana*) forests and *M. gibsonii* from native Chir pine (*P. roxburghii*) forests in Nepal suggest that both fungi are endemic to the Himalayan region as well as to Central America and that the low number of records of *M. dearnessi* suggest that it has apparently failed to spread to other tropical countries despite the presence of potential host plants.

Source: Ivory, M.H. (1994) Records of foliage pathogens of *Pinus* species in tropical countries.
Plant Pathology, 43 (3), 511-518.

Additional key words: new records, new host plants.

94/182 **CERSPD...**EPPO Distribution List for *Mycosphaerella gibsonii*

Due to the new records of *Mycosphaerella gibsonii* in Bangladesh, Jamaica, Kenya, Madagascar, Nepal, Papua New Guinea, South Africa, Sri Lanka, Swaziland and Thailand, its distribution list can be modified as follow.

EPPO Distribution List: *Mycosphaerella gibsonii*

EPPO region: Absent.

Asia: Bangladesh, China, Hong Kong (unconfirmed), India (unconfirmed), Japan (western half of Honshu, Shikoku and Kyushu), Korea Dem. People's Republic, Korea Republic, Malaysia (west), Nepal, Philippines, Sri Lanka, Thailand, Taiwan.

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

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

Oceania: Australia (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.

94/183 **SCIRPI...**EPPO Distribution List for *Mycosphaerella pini*

Due to the new records of *Mycosphaerella pini* in Nepal, Philippines, Sri Lanka and Zambia, its geographical distribution can be modified as follow.

EPPO Distribution List: *Mycosphaerella pini*

EPPO region: Austria, Bulgaria (locally), France (southwest), Germany (locally), Greece, Italy (locally), Portugal (Azores), Romania, Spain, Switzerland (few reports), UK (locally - England), Yugoslavia.

Asia: Brunei Darussalam, India (unconfirmed), Japan (Ito *et al.*, 1975), Georgia, Korea Democratic People's Republic, Korea Republic, Nepal, Philippines, Sri Lanka.

Africa: Kenya, Malawi, South Africa (unconfirmed), Tanzania, Uganda, Zambia, Zimbabwe.

North America: Canada, USA.

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

South America: Argentina, Brazil, Chile, Ecuador, Uruguay.

Oceania: Australia, New Zealand.

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

Source: EPPO Secretariat, 1994-09.

94/184 **BEMITA...**Biological control of *Bemisia tabaci*

In Florida, US, *Delphastus pusillus* is an indigenous coccinellid predator of *Bemisia tabaci* (EPPO A2 quarantine pest) and other whiteflies, which feeds on all stages of its prey. Laboratory studies have been carried out on the interactions of this predator with *Bemisia tabaci* parasitized by aphelinid endoparasitoids (*Encarsia transvena* and *Eretmocerus* sp. nr. *californicus*). The results obtained showed that *D. pusillus* generally avoids parasitized whiteflies, especially those with advanced parasitism. It was also observed that *D. pusillus* and parasitoids tend to attack different stages of *B. tabaci*. The authors concluded that because of this temporal separation between the action of predator and parasitoids, there is a potential for using both type of natural enemies into management programmes to control *B. tabaci*.

Source: Hoelmer, K.A.; Osborne, L.S.; Yokomi, R.K. (1994) Interactions of the whitefly predator *Delphastus pusillus* (Coleoptera: Coccinellidae) with parasitized sweetpotato whitefly (Homoptera: Aleyrodidae). **Environmental Entomology, 23 (1), 136-139.**

94/185 **PHYNCI/ES...**First report of *Phyllocnistis citrella* in Spain

The Plant Protection Service of Spain has recently informed the EPPO Secretariat that foci of citrus leaf miner, *Phyllocnistis citrella*, have been found in Spain. Infestations are very localized in the Provinces of Cadiz and Malaga (approximately 3000 ha) but affect various species and varieties of citrus. *Phyllocnistis citrella* originates from Asia but has recently been reported in Florida, US (RS 94/163). The Spanish Plant Protection Service will set up an eradication programme including surveys, treatments and regulatory measures (especially for nurseries) to prevent further spread of this dangerous pest of citrus. The quarantine status of this pest will be referred to the EPPO Panel on Phytosanitary Regulations ; at present, it appears in neither EPPO nor EU lists.

Source: Spanish Plant Protection Service, 1994-08.

Additional key words: new record.

94/186 **BURSXY...**Development of a specific DNA probe for *Bursaphelenchus xylophilus*

A specific DNA probe for *Bursaphelenchus xylophilus* (EPPO A1 quarantine pest) has been developed by using a satellite DNA isolated from the Japanese isolate (J10) of *B. xylophilus*. The authors have shown that this probe only reacts with *B. xylophilus* and not with *B. mucronatus* and *B. fraudulentus*, and that it can be used directly on a single nematode squashed onto a filter. Within the *B. xylophilus* species, it has been found that the satellite sequence was polymorphic, and hybridization patterns between the probe and *B. xylophilus* isolates are characteristic of each of the tested strains. In addition, it was found that American and Japanese isolates presented more affinity with the probe than the Canadian isolates. This result supports the previous assumption that American and Japanese strains are closely related and that a *B. xylophilus* isolate probably reached Japan from North America. The authors concluded that such a probe can provide a rapid and reliable detection of *B. xylophilus* and is a first step towards the detection of this nematode in wood samples.

Source: Tarès, S.; Lemontey, J.M.; de Guiran, G.; Abad, P. (1994) Use of species-specific satellite DNA from *Bursaphelenchus xylophilus* as a diagnostic probe.
Phytopathology, 84 (3), 294-298.

Additional key words: new detection method.

94/187 **DITYDE...**Surveys on nematodes of potatoes in Saudi Arabia

A survey has been conducted in Saudi Arabia from 1989 to 1991, in the six major potato-producing regions. The following genera, with their respective frequency, were found: *Aphelenchus* (40 %), *Ditylenchus* (28 %), *Tylenchorhynchus* (20 %), *Meloidogyne* (19 %), *Aphelenchoides* (10 %), *Tylenchus* (9 %), *Subanguina* (6 %), *Trichodorus* (5 %), *Pratylenchus* and *Helicotylenchus* (2 %), *Macroposthonia* (0.7 %), *Pratylenchus* and *Cacopaurus* (0.2 %). In Saudi potato fields, the main problems are due to *Meloidogyne* spp. (mainly *M. javanica*), *Tylenchorhynchus* spp. and *Ditylenchus* spp (mainly *D. destructor* - EPPO A2 quarantine pest). This is the first report of *D. destructor* in Saudia Arabia known to the EPPO Secretariat.

Source: Al Hazmi, A.S.; Ibrahim, A.A.M.; Abdul-Raziq, A.T. (1993) Distribution, frequency and population density of nematodes associated with potato in Saudi Arabia.
Afro-Asian Journal of Nematology, 3(1), 107-111.

Additional key words: new record.

94/188 **DITYDE...**EPPO Distribution List for *Ditylenchus destructor*

Due to the report of *Ditylenchus destructor* in Saudi Arabia and information provided by several countries during the validation of geographical data, its distribution list can be modified as follows.

EPPO Distribution List: *Ditylenchus destructor*

EPPO region: Austria (locally), Belgium, Bulgaria (locally), Czech Republic (few reports), Estonia (locally), France (locally), Germany (locally), Greece, Hungary, Ireland, Italy (unconfirmed), Latvia (locally), Lithuania (locally - potential EPPO country), Luxembourg (locally), Netherlands (locally), Norway (few reports), Poland (locally), Romania, Russia, Spain (Canary islands only), Sweden (few reports), Switzerland (few reports), Turkey (locally), UK (few reports and absent in N. Ireland).

Asia: Bangladesh (unconfirmed), China, India (unconfirmed), Iran, Japan, Malaysia (unconfirmed), Pakistan, Russia, Saudi Arabia, Tajikistan, Turkey (locally).

Africa: Locally present in South Africa.

North America: Locally present in Canada, USA.

South America: Locally present in Ecuador, Peru.

Central America and Caribbean: Locally present in Haiti.

Oceania: Locally present in Australia, New Zealand.

This distribution list replaces all previous published EPPO Distribution Lists on *Ditylenchus destructor*!

Source: EPPO Secretariat, 1994-08

94/189 **HETDGL...**Non-host weed species of *Heterodera glycines*

Studies have been carried out in Iowa (US) on the ability of the soybean nematode, *Heterodera glycines* (EPPO A1 quarantine pest) to reproduce on eight weed species commonly found in corn and soybean fields in Iowa. The following weeds have been tested in glasshouse and in small plots in the field : *Abutilon theophrasti* (velvetleaf), *Amaranthus retroflexus* (redroot pigweed), *Chenopodium album* (lambsquarters), *Cirsium arvense* (Canada thistle), *Helianthus annuus* (wild sunflower), *Setaria faberi* (giant foxtail), *Solanum ptycanthum* (eastern black nightshade), *Xanthium strumarium* (cocklebur). The nematode population studied was *H. glycines* race 3. All tested weeds did not allow the reproduction of the nematode and can be considered as non-host of *H. glycines*.

Source: Wong, A.T.S.; Tylka, G.L. (1994) Eight nonhost weed species of *Heterodera glycines* in Iowa.
Plant Disease, 78 (4), 365-366.

Additional key words: non-host plants.

94/190 TMYLCX/IR...Tomato yellow leaf curl geminivirus reported in Iran

According to the Arab and Near East Plant Protection Newsletter, tomato yellow leaf curl geminivirus (EPPO A2 quarantine pest), transmitted by *Bemisia tabaci*, is present in many countries of the Near East where it causes serious damages on tomatoes and has been reported recently and for the first time from Iran.

Source: Anonymous (1993) Disease and Pest Outbreaks
Arab and Near East Plant Protection Newsletter, FAO, ASPP, p 32.

Additional key words: new record.

93/191 TMYLCX...EPPO Distribution List of tomato yellow leaf curl geminivirus

Due to the new record of tomato yellow leaf curl geminivirus in Iran, its distribution list can be modified as follow:

EPPO Distribution List: tomato yellow leaf curl geminivirus

EPPO region: Cyprus, Egypt (potential EPPO country), Italy (present locally), Israel, Malta (present locally), Lebanon (potential EPPO country), Spain (in Almeria only), Turkey, Tunisia.

Africa: Cape Verde, Cote d'Ivoire, Egypt, Senegal, Tunisia.

Asia: Cyprus, India, Iran, Iraq, Israel, Jordan, Lebanon, Philippines (unconfirmed), Saudi Arabia, Taiwan, Thailand, Turkey.

North America: locally present in USA in California.

This distribution list replaces all previous published EPPO Distribution lists on tomato yellow leaf curl geminivirus!

Source: EPPO Secretariat, 1994-08.