



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

# EPPO

## Reporting Service

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# EPPO *Reporting Service*

**93/100**

**EPPO/PQR/MAPS...Validating geographical data in EPPO's data base on quarantine pests - PQR**

The project of producing distribution maps for the Commission of the EC by joint EPPO/CABI efforts will see its first results at the end of the summer when the first distribution maps are produced and sent to the Commission. Validation of the geographical distribution data has been carried out by the EPPO Secretariat in Paris for the replies received, the validated data has been incorporated into EPPO's data base on quarantine pests - PQR, which is ready to be used to produce maps. However, PQR (and any maps produced from it) does not have updated information for EPPO Member Governments which have not replied to the questionnaire. The next version will have updated for Cyprus, Czechoslovakia, Hungary, Malta, Portugal, Romania and Switzerland (currently being processed). For the remainder (Belgium, Germany, Greece, Ireland, Israel, Italy, Luxembourg, Russia, Spain, Tunisia, Turkey), PQR was last updated in 1989. Data has since been entered from various sources, but has not been specifically validated by the countries concerned. It is hoped that a full set of replies will soon have been received.

***This item has been available in INFOEPPO since 1993-05-24!***

**Source: EPPO Secretariat, Paris (1993-05)**

**93/101**

**EPPO/YU...Yugoslavia withdraws from EPPO**

Yugoslavia has withdrawn from EPPO, with effect from the first of January 1993. This reduces the total number of EPPO Member Governments to 33.

**Source: EPPO Secretariat, Paris (1993-05).**



# EPPO *Reporting Service*

**93/102**      **FI/TR...Address changes of the Finnish and Turkish  
phytosanitary authorities**

The plant quarantine authorities in Finland, previously known as the Plant Quarantine Service have been restructured. The new name and address is:

Control Centre for Plant Production  
Plant Protection Service  
Vilhovuorenkatu 11 C

SF-00500 Helsinki  
Finland

Telephone and telefax numbers remain unchanged.

*This item has been available in INFOEPPO since 1993-05-13!*

The EPPO Secretariat has been informed that the Plant Protection Service of Turkey can be reached under new telephone and telefax numbers:

telephone: 90/441 89835  
telefax: 90/441 81262

*This item has been available in INFOEPPO since 1993-05-13*

**Source:            EPPO Secretariat, Paris (1993-05)**



# EPPO *Reporting Service*

93/103

NEW PEST/EC...*Pseudomonas syringae* pv.  
*actinidiae* infecting kiwifruit in the EC (IT)

A new disease of kiwifruit has been reported from Italy for the first time. *Pseudomonas syringae* pv. *actinidiae* caused extensive blight of canes and young kiwifruit plants in Central Italy during spring and summer 1992. Other characteristic symptoms were red-rusty exudations covering the bark of twigs and trunks and angular leaf spots surrounded by chlorotic haloes and tiny cankers along the twigs. The author assumed that the disease was introduced by infected propagation material, since especially 2-year old plants were infected in the affected orchard. All infected plants were uprooted and destroyed. The author believes that *P.s.* pv. *actinidiae* could be dangerous, especially since the pathogen causes extensive damage in Japan, the only country where it has been previously reported.

**Source:** Scortichini, M. (1993) *Pseudomonas syringae* pv. *avellanae* and *P. s.* pv. *actinidiae* new problems for hazelnut and kiwifruit cultivation in Italy. Presentation at the "Premier Colloque Italo-Français De Phytopathologie sur: Maladies nouvelles ou d'introduction récente en France, en Italie et dans le bassin méditerranéen", Alghero, IT, 1993-04-14/18.

93/104

NEW PEST/EC...New bacterial disease of strawberry in the EC (ES, FR)

It has been reported at the first Franco - Italian Phytopathological Colloquium in Alghero, IT, that a new disease of strawberry has been observed in France and Spain since 1988 and 1984, respectively. The disease is caused by a bacterium like organism (BLO) and causes marginal chlorosis. Strawberry plants become stunted, produce less fruit and the fruits may be deformed and not commercially usable. Also an apical necrosis of the roots and stolons have been associated with this disease. From its symptoms it can be confused with frost and herbicide damage as well as with powdery mildew infection. In France, all production areas are affected and tests showed that all strawberry cultivars are, to different degrees, susceptible. Observations showed that the disease is more severe in the vicinity of lakes and rivers.

The authors believed that North Africa and southern Europe are very endangered by this pest.

**Source:**

Nourrisseau, J.G.; Lansac, M.; Garnier, M. (1993) La chlorose marginal du fraisier (*Fragaria ananassa* Duch) association d'un B.L.O. a cette nouvelle maladie.

**Presentation at the "Premier Colloque Italo-Français De Phytopathologie sur: Maladies nouvelles ou d'introduction récente en France, en Italie et dans le bassin méditerranéen", Alghero, IT, 1993-04-14/18.**



# EPPO *Reporting Service*

93/105

NEW PEST...*Anthonomus eugenii* - a new glasshouse pest in  
Canada

A new pest of glasshouse capsicums has been discovered in Canada. In British Columbia the pepper weevil *Anthonomus eugenii*, indigenous to northern Mexico and southern USA, was found infesting glasshouse capsicums in one establishment causing severe damage. About 70% of the capsicums in the glasshouse had to be culled and destroyed with an estimated value of 400 000,- CAD. The application of permethrin suppressed the weevil population within 8 weeks to less than 1%. A side effect of this treatment was, however, the collapse of the biological control strategy against *Myzus persicae* and *Tetranychus urticae*.

The introduction of the pest into the glasshouse was thought to have been caused by wooden pallets which move throughout the region. A previous finding of *A. eugenii* in a retail outlet in 1990 was assumed to be the source of the introduction. But also overwintering hosts from southern USA and northern Mexico whose fruits might have been traded within the region are not excluded as the source of introduction.

*This item has been available in INFOEPPO since 1993-05-21!*

**Source:** Costello, R.A.; Gillespie, D.R. (1993) The pepper weevil, *Anthonomus eugenii* Cano as a greenhouse pest in Canada.  
IOBC/WPRS Bulletin 16 (2), 31-34.



# EPPO Reporting Service

93/106

TMSWXX/IMNSXX/FRANOC...Tomato spotted wilt tospovirus and impatiens necrotic spot tospovirus in Italy

Several papers were given at the first Franco-Italian Phytopathological Colloquium in Alghero, IT, on the occurrence of tomato spotted wilt tospovirus (potential EPPO A2 quarantine pest) and impatiens necrotic spot tospovirus (potential EPPO A2 quarantine pest).

In Puglia (VOULAS et al.) a further spread of tomato spotted wilt tospovirus had been observed. New outbreaks in the provinces of Foggia and Brindisi were recorded. Damage on tomatoes was in general low (10%), but other vegetable crops were affected much more heavily between 50% damage and complete yield loss. Vectors were mainly *Frankliniella occidentalis* (EPPO A2 quarantine pest) and *Thrips tabaci*. Impatiens necrotic spot virus was not detected.

VICCHI et al. reported that tomato spotted wilt and impatiens necrotic spot tospoviruses can be found mainly on ornamental and vegetable crops in Liguria and Emilia-Romagna. The main vector *F. occidentalis* is also present in these regions. In Liguria (RAMASSO et al.), TSWV can be found in the provinces of Imperia and Savona causing particularly serious losses in capsicum. In Savona the virus was also found infecting oleander and *Pelargonium zonale*. INSV is mainly restricted to the province of Imperia and has been found on ornamentals only. A few outbreaks in the province of Savona have been attributed to the import of infected plants from Imperia.

CAMELE et al. reported on the epidemiology of TSWV in Basilicata and Campania. In both regions the virus can be found on ornamentals and vegetables.

**Source:** Presentations at the "Premier Colloque Italo-Français De Phytopathologie sur: Maladies nouvelles ou d'introduction récente en France, en Italie et dans le bassin méditerranéen", Alghero, IT, 1993-04-14/18.



# EPPO *Reporting Service*

93/107

CORBSE...Efficacy of disinfectants on *Clavibacter michiganensis* subsp. *sepedonicus*

In Finland, the efficacy of various disinfectants against *Clavibacter michiganensis* subsp. *sepedonicus* (EPPO A2 quarantine pest) on different surface materials (metal, plastic, and wood surfaces) has been investigated. Most effective compounds were those with the active ingredients iodine (1,8%), glutaraldehyde (10%) and potassium peroxysulphate (60%).

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:**

Koponen, H.; Manninen, M.; Harju, P.; Avikainen, H.; Tahvonen, R. (1992) The effect of disinfectants on *Clavibacter michiganensis* subsp. *sepedonicus* and *Erwinia carotovora* subsp. *atroseptica* on different surface materials.

**Agricultural Science in Finland 1, 597-602.**





# EPPO *Reporting Service*

**93/108**

**ERWIAM...Update on the fireblight situation in Italy**

Fireblight, caused by *Erwinia amylovora* (EPPO A2 quarantine pest), was reported from Italy for the first time in 1990 (see Reporting Service 511/04), occurring in the province of Puglia. Since this first outbreak of the pest the disease has not spread to other regions of the country and the pest situation can be considered as constant. The disease can be found in some localities of the regions of Lecci and Brindisi infecting mainly pears. Infections have been found mainly on young trees of 3-10 years.

**Source:**

Cariddi, C.; Lops, R. (1993) Appunti epidemiologici su *Erwinia amylovora* in Puglia.

Presentation at the "Premier Colloque Italo-Français De Phytopathologie sur: Maladies nouvelles ou d'introduction récente en France, en Italie et dans le bassin méditerranéen", Alghero, IT, 1993-04-14/18.



# EPPO *Reporting Service*

93/109

POSBXX/TMBBXX...Tomato big bud disease found in  
Greece

The question on the identity of tomato big bud MLO is not fully resolved and its possible relationship with potato stolbur MLO (EPPO A2 quarantine pest) has to be considered. In Greece, big bud disease of tomato has been described now for the first time. Further test showed that mycoplasma-like organisms were associated with the disease. Electron microscopy, fluorescence and bright-field microscopy, transmission test and antibiotic treatments showed that pleomorphic mycoplasma-like organisms (MLOs) were present in the sieve tubes of infected tomato plants. The author assumes that due to the natural spread of the disease one or several vectors of the MLO must be present in Greece.

Potato stolbur MLO has been reported from Greece already in 1990

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:** Alivizatos, A.S. (1993) Association of mycoplasma-like organisms with tomato big bud disease in Greece.  
**Plant Pathology 42, 158-162.**



# EPPO *Reporting Service*

93/110

PHYTCN...*Phytophthora cinnamomi* associated with oak decline on the Iberian peninsula

A survey was carried out in Spain and Portugal to determine the causal agent of oak decline on the Iberian peninsula. Thirteen oak decline foci were analysed. From eleven of these, the root pathogen *Phytophthora cinnamomi* (EC Directive pest) was isolated. The authors assumed that the introduction and spread of *P. cinnamomi* may be a major factor in Iberian oak decline, interacting with drought and other site factors and leading to stress-related attacks by insects and other fungi. The authors further assumed that the root pathogen might be involved in similar oak declines occurring elsewhere in the Mediterranean.

*This item has been available in INFOEPPO since 1993-05-21!*

**Source:** Brasier, C.M.; Robredo, F.; Ferraz, J.F.P. (1993) Evidence for *Phytophthora cinnamomi* involvement in Iberian oak decline. **Plant Pathology** 42, 140-145.



# EPPO *Reporting Service*

**93/111**      **ANSTSU...Quarantine treatment of grapefruits infested by**  
***Anastrepha suspensa***

In Florida (US), experiments were carried out to investigate the efficiency of hot-air quarantine treatment to disinfect grapefruits infested by *Anastrepha suspensa* (EPPO A1 quarantine pest). An exposure time of 202 min, giving a mean centre pulp temperature of 45,7° C, was needed to reach 99,9968% mortality (probit 9) of the pest larvae. A confirmatory test resulted in no survivors when 115 037 *A. suspensa* larvae in 3 480 infested grapefruits were heated with 48° C forced air at an average of 0,75 m<sup>3</sup>s<sup>-1</sup> air flow rate until the centre pulp temperature was ≥44° C, which required ≥150 min of heating.

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:**            Sharp, J.L. (1993) Hot-air quarantine treatment for 'Marsh' white grapefruit infested with Caribbean fruit fly (Diptera: Tephritidae). **Journal of Economic Entomology** 86, 462-464.



# EPPO *Reporting Service*

## 93/112 BEMITA...Biological control of *Bemisia tabaci*

Experiments were carried out in The Netherlands to compare the development time, survival and fecundity of *Encarsia formosa* on *Bemisia tabaci* (EPPO A2 quarantine pest) and *Trialeurodes vaporariorum* in order to evaluate if the parasite is able to control *B. tabaci* sufficiently. Hungarian and Dutch scientists found that *E. formosa* developed more slowly, showed a higher mortality and was less fecund when *B. tabaci* was offered as host. *B. tabaci* also had a lower acceptance by the parasite.

The authors, therefore, conclude that *E. formosa* is not sufficiently effective to be used in a self-perpetuating control system when the crop is infested exclusively with *B. tabaci* or with the two whitefly species. In their opinion control of *B. tabaci* through *E. formosa* can be achieved only by regular releases of the parasite during the cropping season.

*This item has been available in INFOEPPO since 1993-05-21!*

**Source:** Szabo, P.; van Lenteren, J.C.; Huisman, P.W.T. (1993) Development time, survival and fecundity of *Encarsia formosa* on *Bemisia tabaci* and *Trialeurodes vaporariorum*.  
**IOBC/WPRS Bulletin 16 (2), 173-176.**

## 93/113 BEMITA...Histochemical changes after feeding injury by *Bemisia tabaci*

In Georgia (US), investigations were conducted to measure the effects of feeding injury induced by larvae and adults of *Bemisia tabaci* (EPPO A2 quarantine pest) on the chlorophyll content and the gas exchange rate of tomato leaves.

It was found that the feeding activity of the whitefly reduced the net photosynthesis and transpiration of the leaves. Larval injury reduced the leaf chlorophyll content and the photosynthetic capacity of the remaining chlorophyll. Furthermore, it was detected that larval injury reduced the tomato leaf gas exchange more than adult injury.

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:** Buntin, G.D.; Gilbertz, D.A.; Oetting, R.D. (1993) Chlorophyll loss and gas exchange in tomato leaves after feeding injury by *Bemisia tabaci* (Homoptera: Aleyrididae).  
**Journal of Economic Entomology 86, 517-522.**

**93/114**      **BEMITA...Populations of *Bemisia tabaci* in Hawaii (US)**

In 1991 two biotypes of *Bemisia tabaci* have been identified in Arizona (US) which were designated as the A and B biotype of the pest. These biotypes reproduced at different rates on different hosts and the B biotype is capable of inducing symptoms of silverleaf and severe growing disorders in vegetables.

In Hawaii (US), a survey was conducted to determine which biotype is present on the islands in order to evaluate possibilities for IPM programmes. Using polyacrylamide gel electrophoresis it was determined that only the B biotype of the whitefly is present on Hawaii. The A biotype could not be detected. During this survey, reproducing populations of *B. tabaci* were also found on taro (*Colocasia esculenta*) and papaya which have not been reported as hosts before and which might have severe implications for the Pacific region.

***This item has been available in INFOEPPPO since 1993-05-24!***

**Source:**            Costa, H.S.; Johnson, M.W.; Ullman, D.E.; Omer, A.D.; Tabashnik, B.E. (1993) Sweet potato whitefly (Homoptera: Aleyrodidae): Analysis of biotypes and distribution in Hawaii.  
**Environmental Entomology 86, 16-20.**



# EPPO *Reporting Service*

**93/115**      **DACUCM...Quarantine treatment for courgettes infested with**  
***Bactrocera cucumis***

*Bactrocera cucumis* (EPPO A1 quarantine pest as a non-European tephritid) is a serious pest of cucurbits, tomato and papaya and is distributed in Australia only. Experiments have been conducted in Australia to test the efficiency of a vapour-heat treatment for courgettes infested with *B. cucumis*. Courgettes infested with 22 h old eggs of the pest were completely disinfested using the vapour-heat treatment of 45° C with >94 RH for 30 min. An estimated total of 178 219 eggs were treated without survivors, thus achieving probit 9 (99,9968% mortality). It was also found that the eggs of the pest were significantly more tolerant to heat than first, second and third instars of *B. cucumis*.

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:**            Corcoran, R.J.; Heather, N.W.; Heard, T.A. (1993) Vapour heat-treatment for zucchini infested with *Bactrocera cucumis* (Diptera: Tephritidae).  
**Journal of Economic Entomology 86, 66-69.**



# EPPO *Reporting Service*

**93/116**      **DACUCU/JP...Specifications on the eradication of *Bactrocera cucurbitae* from Japan**

In their response to the EPPO questionnaire on the distribution of quarantine pests, Japanese authorities have declared the eradication of *Bactrocera cucurbitae* (EPPO A1 quarantine pest) from the country.

Some specifications on the eradication of the pest from the southwestern islands of Japan are as follows:

Kikai eradicated in 1985  
Amami eradicated in 1987  
Tokuno eradicated in 1989  
Okino Erabu eradicated in 1989  
Yoron eradicated in 1989  
Kume eradicated in 1978  
Miyako Islands eradicated in 1987

The eradication of the pest was achieved by applying a sterile insect release programme.

*This item has been available in INFOEPPO since 1993-05-13!*

**Source:**      Sekiguchi, Y. (1990) Eradication of the melonfly (*Dacus cucurbitae*) from Amami Islands of Japan.  
Quarterly Newsletter APPPC , 33 (2), 19-20.





# EPPO *Reporting Service*

**93/117**      **LEPTDE...Chickens do not like *Leptinotarsa decemlineata***

Experiments were carried out in Delaware (US) to feed chicken (*Gallus domesticus*) with larvae and adults of *Leptinotarsa decemlineata* (EPPO A2 quarantine pest) in order to learn if the Colorado beetle is tasty and consequently, if birds could be a mean of decimating the pests.

It was learned by chickens and researchers that the Colorado beetle obviously does not taste very good. After eating two larvae of the pest, most chickens turned around for the more juicy mealworms, never pecking at a Colorado beetle again. The authors, therefore, assumed that other birds also find the Colorado beetle distasteful.

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:**            Hough-Goldstein, J.A.; Geiger, J.; Chang, D.; Saylor, W. (1993)  
Palatability and toxicity of the Colorado potato beetle (Coleoptera:  
Chrysomelidae) to domestic chicken.  
**Annals of the Entomological Society of America 86, 158-164.**

**93/118**      **LEPTDE...Strain of *Leptinotarsa decemlineata* resistant to  
*Bacillus thuringiensis***

In the USA, a first report has been published which records the occurrence of a strain of *Leptinotarsa decemlineata* (EPPO A2 quarantine pest) resistant to the endotoxin of *Bacillus thuringiensis* var. san diego or tenebrionis. Colorado beetles were selected in the laboratory after exposure to potato fields in Michigan (US). After 12 generations of selection, the selected strain was 59 times more resistant than the unselected strain. Based on these results the authors suggest that resistance management strategies should be developed and deployed for both conventionally applied *B. thuringiensis* products and *B. thuringiensis* transgenic plants.

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:**            Whalon, M.E.; Miller, D.L.; Hollingworth; R.M.; Grafius, E.J.; Miller,  
J.R. (1993) Selection of a Colorado potato beetle (Coleoptera:  
Chrysomelidae) strain resistant to *Bacillus thuringiensis*.  
**Journal of Economic Entomology 86, 226-266.**



# EPPO *Reporting Service*

**93/119**      **PUBLICATION...Olive pests and their control in the Near East**

The Food and Agriculture Organization of the United Nations has published a 180 pages strong booklet on olive pests and their control in the Near East as "FAO Plant Production and Protection Paper No. 115". The booklet contains descriptions of the main olive pests in that region and their economic importance, the present situation of pest control and IPM practices and strategies for olive.

The booklet can be purchased locally through an authorized FAO sales agent or directly from:

Distribution and Sales Section  
FAO  
Via delle Terme di Caracalla  
00100 Roma, Italy

*This item has been available in INFOEPPO since 1993-05-24!*

**Source:            EPPO Secretariat, Paris (1993 -05)**