ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO

Reporting

Service

Paris, 2004-07-01 **Reporting Service 2004, No. 07**

CONTENTS

1, rue Le Nôtre
75016 Paris

Tel. : 33 1 45 20 77 94
Fax : 33 1 42 24 89 43

E-mail : hq@eppo.fr
Web : www.eppo.org

2004/100 New data on quarantine pests and pests of the EPPO Alert List

By browsing through the CABI Abstracts, the EPPO Secretariat has extracted the following new data concerning quarantine pests and pests included on the EPPO Alert List. The situation of the pest concerned is indicated in bold, using the terms of ISPM no. 8.

- **New records**

Chrysodeixis eriosoma (Lepidoptera: Noctuidae – EPPO Alert List) has been found on imported plants in Germany. Larvae were present in a park (Alaris-Schmetterlingspark) at Lutherstadt Wittenberg (Sachsen Anhalt) (Heinicke, 2002). **Present, found on imported plants in a park in Sachsen Anhalt.**

Glycaspis brimblecombei (Homoptera: Psyllidae – EPPO Alert List) was detected in Lampa, near Santiago, Chile, in October 2002 (Marín & Parra, 2003). **Present, found in 2002 near Santiago.**

Liriomyza sativae and *L. huidobrensis* (Diptera: Agromyzidae – EPPO A2 list) both occur in Vietnam. During a survey of vegetable crops carried out in 27 provinces during 1998-2002, *L. sativae* was found as the dominant leafminer species (87% of the infested material). It was present and common in all 27 investigated provinces. *L. huidobrensis* was found in 12% of the infested material and only in the highlands of Lam Dong province. *L. trifolii* was not found (Andersen *et al*., 2003).
***L. sativae*: Present, widespread.**
***L. huidobrensis*: Present, only found in the highlands of Lam Dong province.**
***L. trifolii:* Absent, confirmed by surveys.**

Liriomyza sativae (Diptera: Agromyzidae – EPPO A2 list) occurs in Uzbekistan. It was first found in 2001/2002 on tomatoes in the region of Tashkent. The pest has also been found on other vegetables, sunflower and ornamental plants (Drugova & Zlobin, 2003). **Present, first found in 2001/2002 in the region of Tashkent.**

Phoracantha recurva (Coleoptera: Cerambycidae – EPPO Alert List) was found for the first time in Tunisia in 1999. It was found with *P. semipunctata* in *Eucalyptus camaldulensis* and *E. gomphocephala* plantations in the north-west and north-eastern parts of the country (Ben Jamaa *et al.*, 2002). **Present, first found in 1999, in the north-west and north-east.**

Scirtothrips citri (Thysanoptera: Thripidae - EPPO A1 list) is considered as a major pest of Navel orange (*Citrus sinensis*) in the southern part of Jiangxi province, China. The EPPO Secretariat had previously no data on the occurrence of the pest in China (Li *et al.*, 2003). **Present, found in Jiangxi province.**

Xiphinema rivesi (EPPO A2 list) is reported for the first time from Iran (Fadaei *et al.*, 2003). **Present, no details.**

Xiphinema rivesi (EPPO A2 list) is reported from Western Australia (AU), on grapevine (Sharma *et al.*, 2003). **Present, found in Western Australia.**

- **New species**

A new fruit fly species suspected to be in the *Bactrocera dorsalis* group (Diptera: Tephritidae – EPPO A1 list) was detected during routine field surveys in the Coast Province of Kenya. Surveys are being conducted to determine the extent of this infestation (Lux *et al*., 2003).

- **Detailed records**

During a fruit fly survey carried out in 2 orchards in the state of Acre, Brazil, several *Anastrepha* species (Diptera: Tephritidae) were caught. The most common was *Anastrepha obliqua* (EPPO A1 list), *A. striata* and *A. distincta* were rarely found (Thomazini *et al*., 2003).

In Italy, *Cacyreus marshalli* (Lepidoptera: Lycaenidae – EPPO A2 list) was so far only reported from the western coast near Rome (Lazio). In late summer 2001, it was also found in Abruzzi region (Lang, 2002).

Carposina sasakii (Lepidoptera: Carposinidae –EPPO A2 list) occurs in Anhui, China (Wang *et al.*, 2002).

Corythuca arcuata (Hemiptera: Tingidae – EPPO Alert List) and *Dryocosmus kuriphilus* (Hymenoptera: Cynipidae - EPPO A2 list) both occur in Ohio, USA (Boggs *et al.*, 2003).

Diabrotica speciosa (Coleoptera: Chrysomelidae – EPPO A1 list) is present in Minas Gerais, Paraná, Rio Grande do Sul and São Paulo, Brazil (Bastos *et al.*, 2003 – Albuquerque *et al.*, 2002 - Secchi, 2001 – Lourenção *et al*., 2002).

During a survey on nematode problems of guava (*Psidium* guajava), *Ditylenchus dipsaci* (EPPO A2 list) was found in Uttar Pradesh, India (Logani *et al*., 2002).

Dryocosmus kuriphilus (Hymenoptera: Cynipidae - EPPO A2 list) is present in Guangdong, China (Li *et al*., 2004).

Liriomyza sativae (Diptera: Agromyzidae – EPPO A2 list) occurs in Anhui, China (Zhao *et al*., 2001).

Liriomyza trifolii (Diptera: Agromyzidae – EPPO A2 list) occurs in Kerala, India (Reji *et al.*, 2003).

Malacosoma americanum (Lepidoptera: Lasiocampidae –EPPO A1 list) occurs in Indiana, USA (Schmidt *et al*., 2003).

Malacosoma disstria (Lepidoptera: Lasiocampidae –EPPO A1 list) occurs in Minnesota, USA (Miles *et al*., 2003).

Nacobbus aberrans (EPPO A1 list) is present in the state of Oaxaca, Mexico. It was identified in roots of *Capsicum annuum* plants in Cuilapam de Guerrero (Vázquez-López *et al.*, 2002).

Rhynchophorus palmarum (Coleoptera; Curculionidae – EPPO Alert List) is recorded for the first time in the State of Mato Grosso do Sul, Brazil (Sánchez-Soto & Nakano, 2002).

During a survey in 1997-98, *Trogoderma granarium* (EPPO A2 list) was found in stored wheat in Rajasthan, India (Mahla & Ameta, 2001).

Scirtothrips dorsalis (Thysanoptera: Thripidae - EPPO A1 list) occurs in Himachal Pradesh, India (Sharma & Kashyap, 2002).

Siroccocus clavigigenti-juglandacearum (EPPO Alert list) occurs in Indiana, USA (Schmidt *et al*., 2003).

Source:

Albuquerque, F.A. de; Pattaro, F.C.; Borges, L.M.; Lima, R.S.; Zabini, A.V. (2002) Insects associated to Barbados cherry (*Malpighia glabra* L.) in the region of Maringá PR. Acta Scientiarum, 24(5), 1245-1249. In: Review of Agricultural Entomology 94(4), April 2004, abst. 3295, p 516.

Andersen, A.; Nordhus, E.; Vu, T.T.; Tran, T.T.A.; Ha, Q.H.; Hofsvang, T. (2002) Polyphagous *Liriomyza* species (Diptera: Agromyzidae) in vegetables in Vietnam. Tropical Agriculture, 79(4), 241-246. In: Review of Agricultural Entomology 91(12), December 2003, abst. 11868, p 1865.

Bastos, C.S.; Galvão, J.C.C. Picanço, M.C.; Cecon, P.R.; Pereira, P.R.G. (2003) Insect phytophagous and predators incidence on maize and bean cultivated in exclusive and intercropped systems. Ciência Rural, 33(3), 391-397. In: Review of Agricultural Entomology 91(11), November 2003, abst. 10732, p 1960.

Ben Jamaa, M.L.; Villemant, C.; M'Nar, S. (2002) *Phoracantha recurva* Newman, 1840 : a new pest of eucalyptus in Tunisia [Coleoptera : Cerambycidae]. Revue Française d'Entomologie, 24(1), 19-21. In: Review of Agricultural Entomology 90(11), November 2002, abst. 10932, p 1548.

Boggs, J.F.; Young, C.E.; Shetlar, D.J.; Bloetscher, B.; Stone, A.K.; Goerig, D.J.; Malinich, T.J.; Dyke, D.E.; Draper, E.A.; Bennett, P.J.; Gao, G.Y.; Chatfield, J.A.; (2004) Insect and mite activity noted in Ohio nurseries and landscapes: 2003. Special Circular – Ohio Agricultural Research and Development Center, Ohio State University, no. 193, 33-53. In: Review of Agricultural Entomology 92(81), August 2004, abst. 7568, p 1165.

Drugova, E.; Zlobin, V.V. (2003) Tomato leaf miner requires attention. Zashchita i Karantin Rastenii, no. 3, p 36. In: Review of Agricultural Entomology 92(1), January 2004, abst. 189, p 30.

Fadaei, A.A.; Coomans, A.; Kheiri, A.; (2003) Three species of the *Xiphinema americanum* lineage (Nematoda: Longidoridae) from Iran. Nematology, 5(3), 453-461. Nematological Abstracts 73(1), March 2004, abst. 397, p 63.

Heinicke, W. An exotic *Chrysodeixis* species (Lep. Noctuidae, Plusiinae) introduced to Sachsen-Anhalt. Entomologische Nachrichten und Berichte, 46(3), 141-150. In: Review of Agricultural Entomology 91(9), September 2003, abst. 9740, p 1528.

Lang, R. (2002) Recent records of *Cacyreus marshalli* Butler, 1898, from the Abruzzi mountains in central Italy (Lepidoptera: Lycaenidae). Entomologische Zeitschrift mit Insekten-Börse, 112(6), 162-163. In: Review of Agricultural Entomology 92(1), January 2004, abst. 1009, p 161.

Li, X.L.; Li, W.; Guo, F.S.; Lai, B.S. (2003) The damage of thrips to the Navel orange fruit and its control. South China Fruits, 32(3), p 21. In: Review of Agricultural Entomology 92(2), February 2004, abst. 1180, p 189.

Li, Y.Z;; Yi, Y.H.; Zheng, Z.L.; Xie, Z.F. (2004) The spatial distribution of chestnut gall wasp and sampling techniques in the chestnut plantation. Journal of South China Agricultural University, 25(1), 62-65. In: Review of Agricultural Entomology 92(7), July 2004, abst. 6481, p 995.

Logani, R.; Dwivedi, B.K.; Dwivedi, B.P.; Shukla, D. (2002) Nematode and wilt problems of guava in and around Allahabad region. Current Nematology, 13(1/2), 23-26. Nematological Abstracts 73(2), June 2004, abst. 541, p 84.

Lourenção, A.L.; Braga; N.R.; Miranda, M.A.C.; Valle, G.E.; Pereira, J.C.N.A.; Reco, P.C. (2002) Evaluation of damage in soybean genotypes of three maturity groups caused by stinkbugs and defoliators. Neotropical Entomology, 31(4), 623-630. In: Review of Agricultural Entomology 91(6), June 2003, abst. 5619, p 885.

Lux, S.A.; Copeland, R.S.; White, I.M.; Manrakhan, A.; Billah, M.K.(2003) A new invasive fruit fly species from the *Bactrocera dorsalis* (Hendel) group detected in East Africa. Insect Science and its Application, 23(4), 355-361. In: Review of Agricultural Entomology 92(7), July 2004, abst. 7267, p 1117.

Mahla, M.K.; Ameta, O.P. (2001) Grain infestation in stored wheat in arid zone of Rajasthan. Insect Environment, 7(3), 127-128. In: Review of Agricultural Entomology 90(10), October 2002, abst. 9753, p 1375.

Marín, S.; Parra, S.N. (2003) The attack of *Glycaspis brimblecombei*. Chile Forestal, no. 297, p 10. In: Review of Agricultural Entomology 92(1), January 2004, abst. 291, p 47.

Miles, P.D.; Mielke, M.E.; Brand, G.J. (2003) Minnesota's forest resources in 2001. Resource Bulletin – North Central Research Station, USDA Forest Service no. NC-217, 24 pp. In: Review of Agricultural Entomology 92(2), February 2004, abst. 1315, p 211.

Reji, G.V.; Prathapan, K.D.; Hebsy, R.; (2003) Record of hymenopteran parasitoids of *Liriomyza trifolii* (Burgess) from Kerala. Insect Environment, 9(1), 39-42. In: Review of Agricultural Entomology 92(8), August 2004, abst. 7837, p 1207.

Sánchez-Soto, S.; Nakano,O. (2002) First record of *Rhynchophorus palmarum* L.; (Coleoptera: Curculionidae) in the State of Mato Grosso do Sul, Brazil. Neotropical Entomology, 31(4), 659-660. In: Review of Agricultural Entomology 91(6), June 2003, abst. 5712, p 899.

Schmidt,T.L.; Mielke, M.E.; Marshall, P.T. (2003) Indiana's forest resources in 2000. Resource Bulletin – North Central Research Station, USDA Forest Service no. NC-206, 25 pp. Review of Agricultural Entomology 91(7), July 2003, abst. 6886, p 1082.

Secchi, V.A.; (2001) Situation of soil pests in Rio Grande do Sul: a view of rural extension. Documentos – Embrapa Soja no. 172, 17-41. In: Review of Agricultural Entomology 90(10), October 2002, abst. 10260, p 1451.

Sharma, S.B.; McKirdy, S.; Mackie, A.; Lamberti, F. (2003) First record of *Xiphinema rivesi* associated with grapevines in Western Australia. Nematologia Mediterranea, 31(1), p 87. In: Nematological Abstracts 72(4), December 2003, abst. 1510, p 231.

Thomazini, M.J.; Albuquerque, E.S.; Souza Filho, M.F. (2003) First record of *Anastrepha* species (Diptera: Tephritidae) from the state of Acre, Brazil. Neotropical Entomology, 32(4), 723-724. In: Review of Agricultural Entomology 92(5), May 2004, abst. 5189, p 797.

Vázquez-López, A. ; Tlapal-Bolaño, B. ; Yañez-Morales, M. de J. ; Quintos-Escalante, M. (2002) An etiology of the rate of wilting of the chile de agua variety chili pepper (*Capsicum annuum* L.) in the central valleys of Oaxaca, Mexico. Proceedings of the 16th International

Pepper Conference, Tampico, MX, 2002-11-10/12. In: Nematological Abstracts 73(2), June 2004, abst. 550, p 85.

Wang, D.X.; Lou, Z;; Li, P.; Gao, Z.H. (2002) The main diseases and pests of pomegranate in Huaiyuan area and their control. China Fruits, no. 1, 36-38. In: Review of Agricultural Entomology 91(2), February 2003, abst. 1486, p 232.

Zhao, G.; Liu, P.T.; Lu, D.X. (2001) Bean yield loss caused by *Liriomyza sativae* and control threshold. Entomological Knowledge, 38(3), 200-201. In: Review of Agricultural Entomology 90(9), September 2002, abst. 8146, p 1152.

Additional key words: new records, new pests, detailed records

Computer codes: ANSTDI, ANSTOB, ANSTST, CACYMA, CARSSA, CHRXER, CRTHAR, DACUSP, DIABSC, DITYDI, DRYCKU, GLYSBR, LIRIHU, LIRISA, LIRITR, MALAAM, MALADI, NACOBA, PHOARE, RHYCPA, SCIROCJ, SCITCI, SCITDO, TROGGA, XIPHRI, AU, BR, CL, CN, DE, IN, IR, IT, KE, MX, TN, US

2004/101 First report of *Phymatotrichopsis omnivora* in Libya

Phymatotrichopsis omnivora (*Phymatotrichum omnivorum* – EPPO A1 list) was recorded for the first time in Libya in summer 2001. The fungus was isolated from diseased grapevine roots. Pure cultures were sent abroad to 2 laboratories which both confirmed the identity of the pathogen. This is the first record of *P. omnivora* in Libya. According to the EPPO Secretariat, this is also the first confirmed record of *P. omnivora* outside the Americas.

Source: El-Hady El-Sherif, S. (2003) First record of *Phymatotrichum omnivorum* on grapevine in Libya.
Arab and Near East Plant Protection Newsletter, no. 37, December 2003, Arab Society for Plant Protection and FAO Near East Regional Office, p 30.

Additional key words: new record

Computer codes: PHMPOM, LY

2004/102 Outbreak of *Xanthomonas axonopodis* pv. *citri* in Queensland, Australia

In July 2004, a new outbreak of citrus canker (caused by *Xanthomonas axonopodis* pv. *citri* – EPPO A1 list) was discovered in a large commercial citrus orchard (1200 ha) at Emerald, Queensland (AU). Eradication measures were taken and included restrictions on the movements of citrus fruits and massive destruction of trees (so far, it is planned to destroy 80,000 orange and lemon trees). Surveys are being conducted to delimit the outbreak. Samples have been collected and will be sent to USA for DNA testing to try to determine the type of strain and eventually its area of origin. So far, surveys done within a 50 km radius around the infected orchard have not detected the pathogen.

Source: ProMED postings of 2004-07-12/13/14/15/20/26. Citrus canker outbreak (Queensland) (no. 01 to 08). http://www.promedmail.org
Rural News, Australia, 2004-07-07. Citrus industry prepares to deal with canker outbreak. http://www.abc.net.au/rural/news/stories/s1148591.htm

Additional key words: detailed record **Computer codes:** XANTCI, AU

2004/103 First report of citrus greening in Brazil

In Brazil, the presence of citrus greening disease (EPPO A1 list) has recently been observed in São Paulo state. It was first considered that *Liberobacter asiaticum* was present but studies suggest that a new strain of citrus greening bacterium occurs in Brazil. At present, the disease has been reported from commercial citrus orchards in 15 municipalities, all located in the centre-southern part of the state. The psyllid vector *Diaphorina citri* (Homoptera: Psyllidae – EPPO A1 list) is widespread in São Paulo state. The presence of citrus greening in Brazil is considered as a serious threat to the citrus industry.
The situation of citrus greening bacterium in Brazil can be described as follows: **Present, first reported in 2004 in several citrus orchards of São Paulo state.**

Source: ProMED posting of 2004-07-23. Huanglongbin, citrus – Brazil: new strain ? http://www.promedmail.org
Agencia Estado Brazil web site. SP confirms new citrus greening strain.
http://www.aebrazil.com/highlights/2004/jul/15/43.htm
CruzeiroNet website. Fundecitrus confirma greening em 15 municípios de São Paulo.
http://www.cruzeironet.com.br/run/10/134153.shl#
Governo do Estado de São Paulo website. Agricultura: Secretariat e Fendecitrus trabalham no combate à doença que afeta os laranjais paulistas (2004-07-21)
http://www.saopaulo.sp.gov.br/sis/notprint.asp?nid=53374

Additional key words: new record **Computer codes:** LIBESP, BR

2004/104 First report of *Diaphorina citri* in Mexico

Diaphorina citri (Homoptera: Psyllidae – EPPO A1 list) was found in citrus trees in the municipality of Arroyo Seco, Queretaro, Mexico on April 2004. Surveys and sampling are presently taking place in adjacent municipalities and premises to delimit the presence of the pest in the area. According to the EPPO Secretariat, this is the first record of *D. citri* in Mexico. Citrus greening bacterium which is transmitted by *D. citri* is not known to occur in this country.
The situation of *D. citri* in Mexico can be described as follows: **Present, first found in 2004 in Queretaro state.**

Source: **NAPPO Phytosanitary Alert System. News Story 2004-07-16.**
First report of Asian citrus psyllid (*Diaphorina citri* Kuwayama, Homoptera: Psyllidae), in the municipality of Arroyo Seco, Queretaro, Mexico.
http://www.pestalert.org

Additional key words: new record **Computer codes:** DIAACI, MX

2004/105 First report of *Phytophthora ramorum* in Switzerland

In Switzerland, *Phytophthora ramorum* (EPPO Alert List) was found for the first time in a nursery in the Swiss Plateau (region between Jura and the Alps) on a wilting *Viburnum*. Control measures were immediately applied to prevent any further spread.
The situation of *P. ramorum* in Switzerland can be described as follows: **Present, first reported in 2004 on *Viburnum* in one nursery, under eradication.**

Source: Heiniger, U.; Theile, F.; Stadler, B. (2004) [First finding of *Phytophthora ramorum* in Switzerland.]
Schweizerische Zeitschrift für Forstwesen, 155(2), 53-54 (abst.).

Additional key words: new record **Computer codes:** PHYTRA, CH

2004/106 First report of *Phytophthora ramorum* in Piemonte, Italy

In Italy, *Phytophthora ramorum* (EPPO Alert List) was discovered in spring 2002 in Piemonte region on a plant of *Rhododendron yakushimanum* from a nursery in Verbania. Control measures were immediately applied to prevent any further spread.
The situation of *P. ramorum* in Italy can be described as follows: **Present, first found in 2002 on Rhododendron in one nursery in Piemonte, under eradication.**

Source: Gullino, C.; Garofalo, M.C.; Moretti, F.; Gianetti, G.; Mainenti, E. (2003) [Discovery of *Phytophthora ramorum* on rhododendron.]
Informatore Agrario, 59(19), 87-89 (abst.).

INTERNET
Servizio Fitosanitario Emilia-Romagna. Prima segnalazione in Italia di *Phytophthora ramorum*.
http://www.regione.emilia-romagna.it/fitosanitar/news/2003/giugno_2003_phytophthora_ramorum.htm

Direzione Generale Agricoltura. Regione Lombardia. *Phytophthora ramorum* Werres, De Cock & Man in 't sp. nov.
http://www.agricoltura.regione.lombardia.it/admin/rla_Documenti/1-259/phytophthora_ramorum.pdf

Additional key words: new record **Computer codes:** PHYTRA, IT

2004/107 Annual Meeting of the American Phytopathological Society: new data on quarantine pests

The Annual Meeting of the American Phytopathological Society will take place in Anaheim, US, on 2004-07/31-08-04, abstracts of submitted papers are already published in a supplement issue of Phytopathology. The EPPO Secretariat has extracted the following information:

Citrus greening bacterium (EPPO A1 list)
A PCR method has been developed in India to detect citrus greening bacterium in commercial citrus species (Gopal *et al.*, 2004).

***Impatiens necrotic spot tospovirus* (EPPO A2 list)**
Impatiens necrotic spot tospovirus was detected for the first time in New Zealand (South Island) in August 2003 from freesia (a new host record). INSV was also found in *Impatiens, Ranunculus, Primula* and *Lobelia* from the same site. In a survey of 50 nurseries from the North and South Islands, 637 samples were collected from 45 plant genera. INSV was detected on impatiens at two additional sites in the North Island. New Zealand isolates shared 96-99% identity with isolates from USA, Japan and the Netherlands. The Ministry of Agriculture and Forestry and industry are discussing appropriate actions (Lebas *et al.*).

***Phytophthora ramorum* (EPPO Alert List) in USA**
In North Carolina (US), a survey for *P. ramorum* was carried out in 14 nurseries which grew *Rhododendron, Pieris* and *Viburnum*. More than 230,000 plants were surveyed and 339 samples collected. *P. ramorum* was not detected (Benson & Warfield, 2004).

In Oklahoma (US), surveys were conducted in July 2002 and May-June 2003. In 2002, *Rhododendron* and *Viburnum* growing at the 2 largest nurseries were inspected. In 2003, the survey was expanded to include more nurseries and more hosts (*Pieris, Lonicera*). *P. ramorum* was not detected (von Broembsen *et al.*, 2004).

In Texas (US), a survey was carried out in nurseries. Plants were sampled from 36 nurseries in 27 counties distributed throughout the state. *P. ramorum* was not found (Appel & Kurdyla, 2004).

Inoculation studies were conducted to determine the potential susceptibility of foliage and shoots from 25 conifers to *Phytophthora ramorum*. 20 of the conifers tested, including many of the important species that are used as Christmas trees (in USA), were susceptible to *P. ramorum*. Symptoms included needle blight, shoot blight, and stem lesions. These results indicate that many different types of conifers are potentially susceptible to *P. ramorum* (Chastagner *et al.*, 2004).

***Strawberry latent ringspot virus* (EU Annexes)**
In 2002 and 2003, strawberry plants in coastal California (US) and British Columbia (CA) developed symptoms of leaf reddening, stunting and plant death. Up to 5 viruses were identified in declining plants. Among them, *Strawberry latent ringspot virus* and *Fragaria chiloensis latent virus* were identified in California and British Columbia. These two viruses were previously thought not to occur in USA and Canada (Tzanetakis *et al.*, 2004).

***Xylella fastidiosa* (EPPO A1 list)**
PCR methods have been developed in USA for the detection, differentiation and quantification of *X. fastidiosa* strains. In this study, 5 PCR systems were developed based on the currently available genomic sequences of 4 strains: Pierce's disease of grapevine, almond leaf scorch, oleander leaf scorch and citrus variegated chlorosis. These PCR systems were able to differentiate each strain specifically in suspensions containing a mixture of strains (whole bacteria or DNA) and in DNA extractions from field-collected samples (Francis *et al*., 2004).

In California (US), *Xylella fastidiosa* has been isolated from new host plants: liquidambar (*Liquidambar styraciflua*), olive (*Olea*) and ornamental plum (*Prunus*) trees (Hernandez-Martinez *et al*., 2004).

Source: Abstracts of the APS Annual Meeting, Anaheim, US, 2004-07-31-08/04.
Phytopathology, 94(6), supplement of June 2004, 180 pp.

Appel, D.N.; Kurdyla, T.; (2004) Nursery survey for sudden oak death in Texas (S5)
Benson, D.M.; Warfield, C.Y. (2004) *Phytophthora ramorum* not detected in a survey of North Carolina nurseries (S7).
Chastagner, G.A.; Hansen, E.M.; Riley, K.L.; Sutton, W. (2004) Susceptibility of conifer shoots to infection by *Phytophthora ramorum* (S16).
Francis, M.; Civerolo, E.; Lin, H. (2004) PCR-based systems for the detection, differentiation and quantification of *Xylella fastidiosa* strains (S31).
Gopal, K.; Reddy, M.K.; Prasadbabu, G.; Baranwal, V.K.; Khayum, S.; Phaneendra, C.; Gopi, V.; Palanivel, C. (2004) PCR detection of citrus greening bacterium (CGB) disease in commercial citrus species by addition of sodium sulphite in DNA extraction (S35).
Hernandez-Martinez, R.; Dumenyo, C.K.; Azad, H.; Costa, H.S.; Wong, F.P.; Cooksey, D.A. (2004) Phylogenetic analyses of *Xylella fastidiosa* strains isolated from ornamental hosts (S152).
Lebas, B.S.M.; Ochoa-Corona, F.M.; Elliott, D.R.; Tang, Z.; Alexander, B.J.R.; Froud, K.J. (2004) An investigation of an outbreak of *Impatiens necrotic spot virus* in New Zealand (S57).
Tzanetakis, I.; Bolda, M.; Martin, R. (2004) Identification of viruses in declining strawberries along the west coast of North America (S104).
Von Broembsen, S.L.; Olson, B.R.; Schnelle, M.A. (2004) Surveys of Oklahoma ornamental nurseries for *Phytophthora ramorum* the cause of sudden oak death (S106)

Additional key words: new records, new host plants, diagnosis

Computer codes: INSV00, LIBESP, PHYTRA, SLRSV0, XYLEFA, CA, NZ, US

2004/108 An update of the host range of *Tomato spotted wilt tospovirus*

Tomato spotted wilt tospovirus (TSWV - EPPO A2 list) has an extremely wide host range. A list of host plants of TSWV has recently been updated by Parella *et al.* (2003). It contains 1090 plants species belonging to 15 families of monocotyledonous plants, 69 families of dicotyledonous plants and 1 family of pteridophytes.

Source: Parella, G.; Gognalons, P.. Gebre-Selassié, K.; Vovlas, C.; Marchoux, G. (2003) An update of the host range of *Tomato spotted wilt tospovirus*. **Journal of Plant Pathology, 85(4), 227-264.**

Additional key words: host plants

Computer codes: TSWV00

2004/109 *Tomato yellow leaf curl begomovirus* is present in Italy

Since the late 1980s, tomato crops in Sicilia and Sardegna (IT) have been severely affected by yellow leaf curl disease. So far, only *Tomato yellow leaf curl Sardinia begomovirus* (TYLCSV - EPPO A2 list) was recorded in Italy. Over the past 5 years, surveys have been conducted in the main tomato production area of Sicilia (Ragusa Province) to determine whether viral species other than TYLCSV were present. In 2002, 49 symptomatic leaf samples were tested by PCR/RFLP. 16 samples were identified as TYLCSV, 7 as *Tomato yellow leaf curl begomovirus* (TYLCV – formerly TYLCV-Is), and 26 samples produced a combination of the two RFLP patterns indicating the presence of both viruses. According to the authors, this is the first report of TYLCV in Italy.

Source: Accotto, G.P.; Bragaloni, M.; Luison, D.; Davino, S.; Davino, M. (2003) First report of *Tomato yellow leaf curl virus* (TYLCV) in Italy.
Plant Pathology, 52(6), p 799.

Additional key words: detailed record **Computer codes:** TYLCV0, IT

2004/110 Details on the situation of *Iris yellow spot tospovirus* in USA and more particularly in Colorado

Iris yellow spot tospovirus (IYSV – EPPO Alert List) is an emerging disease of onions which is spreading in the western United States. So far, IYSV has been found in the following states: Arizona*, California*, Colorado, Idaho, Nevada*, New Mexico*, Utah*, Washington. Reasons for its sudden dissemination and development on onion crops remain unknown. Annual surveys were conducted in Colorado from 2001 to 2003 and showed that the distribution of IYSV has increased dramatically since 2001, although the virus is still absent in southern and north-eastern Colorado. IYSV was confirmed in 1 of 18 fields (5.6%) in 2001, 4 of 24 fields (16.7%) in 2002, and 41 of 56 fields (73.2%) in 2003. In 2003, IYSV was also detected on volunteer onions in several fields where it had been found the previous year. Further studies showed that the presence of IYSV is associated with a general reduction in bulb size.

* The EPPO Secretariat had previously no data on the occurrence of IYSV in these states.

Source: Gent, D.H.; Schwartz, H.F.; Khosla, R. (2004) Distribution and incidence of *Iris yellow spot virus* in Colorado and its relation to onion plant population and yield.
Plant Disease, 88(5), 446-452.

Additional key words: detailed records **Computer codes:** IYSV00, US

2004/111 Situation of *Anoplophora glabripennis* in Korea Republic

Though common in China, *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A1 list) does not cause outbreaks in Korea Republic and is rarely collected there. The earliest specimens were collected in 1909, and the presence of *A. glabripennis* in Korea has been known primarily through a handful of specimens in museum collections. Surveys were carried out in 2000 and 2001 in natural forest stands, in 9 montane regions of Korea Republic, to investigate distribution and abundance of *A. glabripennis*. *A. glabripennis* seems to be limited to *Acer* species (*A. mono* and *A. truncatum*). Thorough inspection did not reveal its presence on species of *Populus, Salix, Betula* or *Ulmus*. Two locations (Young Dae and Oknyo Tang) in Mount Sorak National Park were surveyed more intensively, as a small population of *A. glabripennis* had been discovered in 1999. All host trees were inspected, and less than 10% showed evidence of beetle presence, and only few beetles were found. Observations also showed that *A. glabripennis* is not found in closed forest canopies but mainly on trees growing singly in open sunny habitats, or near streams or roads. In order to explain why *A. glabripennis* is a relatively rare species in Korea, it is supposed that its populations are limited by the following factors:
- natural resistance of individual trees
- high forest tree diversity
- effective regulation by natural enemies
- highly restricted host range (*Acer*)

It is also hypothetised that *A. glabripennis* is an 'edge-specialist' which inhabits forest margins and which is well adapted to forest habitats constructed or disturbed by man.

Source: Williams, D.W.; Lee, H.P.; Kim, I.K. (2004) Distribution and abundance of *Anoplophora glabripennis* (Coleoptera: Cerambycidae) in natural *Acer* stands in South Korea.
Environmental Entomology, 33(3), 540-545.

Additional key words: detailed record **Computer codes:** ANOLGL, KR

2004/112 Molecular techniques to distinguish *Liriomyza trifolii* from *L. sativae*

In Japan, *Liriomyza trifolii* and *L. sativae* (Diptera: Agromyzidae – both EPPO A2 list) were first found in the early 1990s and in 1999, respectively. They are now believed to be widespread and dominant on some vegetable crops, and they can occur at the same locations. A multiplex PCR method, amplifying a region of the mitochondrial cytochrome oxidase gene has been developed in Japan to differentiate *L. trifolii* rapidly from *L. sativae*.

Source: Miura, K.; Tagami, Y.; Ohtaishi, M.; Iwasaki, A. (2004) Application of molecular techniques to distinguish *Liriomyza trifolii* from *L. sativae* (Diptera: Agromyzidae) on tomato cultivation in Japan.
Journal of Economic Entomology, 97(3), 964-969.

Additional key words: diagnostic **Computer codes:** LIRITR, LIRISA

2004/113 Irradiation treatments for *Conotrachelus nenuphar, Maconellicoccus hirsutus* and fruit flies

Research was done in USA to develop a phytosanitary irradiation treatment against *Conotrachelus nenuphar* (Coleoptera: Curculionidae – EPPO A1 list). Results showed that adults were the most resistant stage, and that the dose recommended as a quarantine treatment, which would prevent adults from reproducing, is 92 Gy. It was also noted that hosts of *C. nenuphar* (e.g. *Malus, Prunus, Vaccinium*) would tolerate such a dose (Hallman, 2003).

Studies were done in USA on the tolerance of *Maconellicoccus hirsutus* (Homoptera: Pseudococcidae – EPPO A1 list) to irradiation, in order to determine the dose needed to disinfect commodities. Adults were the most resistant stage. At 100 Gy, adults were still able to produce a small number of viable eggs (1.2%), which gave rise to individuals able to produce progeny. At 250 Gy, all adults were controlled and no eggs hatched. It is concluded that the minimum dose needed to ensure phytosanitary security is between 100 and 250 Gy. Further research is still needed to determine the lowest effective dose (Jacobsen & Hara, 2003).

Studies were done in Mexico to determine the minimum irradiation dose required to prevent adult emergence of the following fruit fly species infesting mangoes: *Anastrepha ludens, A. obliqua, A. serpentina* (Diptera Tephritidae – EPPO A1 list) and *Ceratitis capitata* (EPPO A2 list). Mangoes infested with third instar larvae (most resistant stage) were irradiated at various doses. Results showed that a dose of 150 Gy could be recommended to ensure phytosanitary

security. A minor decrease in the ascorbic acid content was the only adverse effect observed in irradiated mangoes (Bustos *et al*., 2004).

Source: Bustos, M.E; Enkerlin, W.; Reyes, J.; Toledo, J. (2004) Irradiation of mangoes as a postharvest quarantine treatment for fruit flies (Diptera: Tephritidae).
Journal of Economic Entomology, 97(2), 286-292.

Hallman, G.J. (2003) Ionizing irradiation quarantine treatment against plum curculio (Coleoptera: Curculionidae).
Journal of Economic Entomology, 96(5), 1399-1404.

Jacobsen, C.M.; Hara, A.H. (2003) Irradiation of *Maconellicoccus hirsutus* (Homoptera: Pseudococcidae) for phytosanitation of agricultural commodities.
Journal of Economic Entomology, 96(4), 1134-1339.

Additional key words: quarantine treatments

Computer codes: ANSTLU, ANSTOB, ANSTSE, CERTCA, CONHNE, PHENHI