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<u>2001/081</u> New data on quarantine pests and pests of the EPPO Alert List

By browsing through the literature, 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 geographical records

Aleurodicus dispersus (Alert List) is reported for the first time from Venezuela. **Present, no details**. Review of Agricultural Entomology, 89(3), p 424 (3191).

Bemisia tabaci (EPPO A2 quarantine pest) was recently found in Korea Republic on *Glycine max*, *Euphorbia pulcherrima* and hybrid *Rosa*. Both B biotype and non-B biotypes were identified . **Present, no details.** Review of Agricultural Entomology, 89(1), p 16 (106).

Ceratitis rosa (EPPO A1 quarantine pest) occurs in Guinea. In particular, it occurs in coastal areas on mango crops (*Mangifera indica*). **Present, at least in coastal areas**. Review of Agricultural Entomology, 89(2), p 176 (1295).

Toxoptera citricida (EPPO A1 quarantine pest) was observed for the first time in Mexico in April 2000, in the State of Quintana Roo. This is the first confirmed report of *T. citricida* in Mexico. **Present, only in Quintana Roo**. Review of Agricultural Entomology, 89(3), p 311 (2317).

• Detailed records

Aleurodicus dispersus (Alert List) is present in Andhra Pradesh and Maharashtra India, where it is a pest of guava (*Psidium guajava*). Review of Agricultural Entomology, 89(1), p 40 (275 & 277).

During studies carried out in 1990-94, *Numonia pirivorella* (EPPO A2 pest) was identified as an important pest of pears in Neimenggu, China. Review of Agricultural Entomology, 89(3), p 304 (2259).

Anthomonus eugenii (EPPO A1 quarantine pest) occurs in Baja California, Mexico. Review of Agricultural Entomology, 89(1), p 50 (353 & 354).

Bemisia tabaci (EPPO A2 quarantine pest), biotype B, is present in Iran. Review of Agricultural Entomology, 89(4), p 446 (3335).



Cydia inopinata (EPPO A2 quarantine pest) occurs in the western part of Henan province, China. Review of Agricultural Entomology, 89(2), p 234 (1718).

Dacus ciliatus (EPPO A1 quarantine pest) was identified on cucurbit crops in Bangladesh. This confirms earlier reports. Review of Agricultural Entomology, 89(5), p 561 (4191).

Frankliniella occidentalis (EPPO A2 quarantine pest) occurs in Arkansas, USA. Review of Agricultural Entomology, 89(3), p 320 (2395).

Frankliniella occidentalis (EPPO A2 quarantine pest) occurs in Auckland, New Zealand (Anonymous, 2001).

In a paper (van den Berg & Greenland, 2000) reviewing the literature on *Tamarixia dryi*, a parasitoid of *Trioza erytreae* (EPPO A1 quarantine pest), it is stated that *Liberobacter africanum* (causal agent of citrus greening - EPPO A1 quarantine pest) has been a serious problem on St Helena since the 1980s. This statement confirms earlier reports on the possible presence of *L. africanum* in St Helena.

Liberobacter asiaticum (EPPO A1 quarantine pest – causal agent of citrus greening) was found on pomelos and mandarins in Irian Jaya, Indonesia. It was not detected in Papua New Guinea or north Queensland (Australia). Review of Plant Pathology, 80(4), p 359 (2645).

Liriomyza trifolii (EPPO A2 quarantine pest) occurs in Uttar Pradesh, India. Review of Agricultural Entomology, 89(1), p 45 (310).

Microcephalothrips abdominalis (EPPO Alert List) is present in Florida, US. Review of Agricultural Entomology, 89(1), p 49 (344).

Opogona sacchari (EPPO A2 quarantine pest) was recently found in Guangdong, China, where it caused serious damage to ornamental plants. Review of Agricultural Entomology, 89(3), p 339 (2548).

Scirtothrips aurantii (EPPO A1 quarantine pest) occurs in Mpumalanga Province, South Africa. It causes severe fruit lesions on mango fruits (Grové *et al.*, 2000).

Xanthomonas axonopodis pv. *citri* (EPPO A1 quarantine pest) was identified on citrus (in small and isolated foci) in Irian Jaya, Indonesia. Review of Plant Pathology, 80(4), p 359 (2644).

• New host plants

In the Punjab Province of Pakistan, *Cotton leaf curl begomovirus*-Pakistan was found in radish plants (*Raphanus sativus*) showing symptoms of leaf curl and enations (Mansoor *et al.*, 2000).

In Thailand, melon (*Cucumis melo* var. *reticulatus*) plants showing symptoms of a yellow leaf disease have been observed since 1983. Molecular studies revealed the presence of a virus showing 97% sequence similarity with *Tomato leaf curl begomovirus* from India (Samretwanich *et al.*, 2000).

Source: Anonymous (2001) New organism records: 6/1/01 – 16/2/01. Biosecurity no. 26, 15 March 2001, p 23. MAFF, Wellington (NZ).

Grové, T.; Giliomee, J.H.; Pringle, K.L. (2000) Treatment levels for citrus thrips, *Scirtothrips aurantii* (Thysanoptera: Thripidae), in mango orchards. **African Plant Protection, 6(1), 17-20.**

Mansoor, S.; Mukhtar, S.; Hussain, M.; Amin, I.; Zafar, Y.; Malik, K.A.; Markham, P.G. (2000) Widespread occurrence of *Cotton leaf curl virus* on radish in Pakistan. **Plant Disease, 84(7), p 809.**

Samretwanich, K.; P. Chiemsombat, P.; Kittipakorn, K.; Ikegami, M. (2000) Yellow leaf disease of muskmelon from Thailand caused by Tomato leaf curl virus. **Plant Disease, 84(6), p 707.**

van den Berg, M.A.; Greenland, J. (2000) *Tamarixia dry*i, parasitoid of the citrus psylla, *Trioza erytreae*: a review. **African Plant Protection, 6(1), 25-28.**

EPPO Secretariat, 2001-05.

Nematological Abstracts, 69(4). December 2000. Review of Agricultural Entomology, 88(10 & 12). October and December 2000. Review of Agricultural Entomology, 89(1-5). January to May 2001. Review of Plant Pathology, 79(10, 11, 12). October, November and December 2000 Review of Plant Pathology, 80(4). April 2001

Additional key words: detailed records, new records,	Computer codes: ALEDDI, ANTHEU, BEMIAR,
new host plants	BEMITA, CERTRO, CYDIIN, DACUCI, FRANOC,
	LIBEAS, LIBEAF, LIRITR, MCCTAB, NEPOPI,
	OPOGSC, SCITAU, TOXOCI, XANTCI, BD, CN, GN,
	ID, IN, IR, KR, MX, NZ, PK, SH, TH, US, VE, ZA



2001/082 Surveys on *Ralstonia solanacearum* in Slovenia

Since 1996, systematic surveys for Ralstonia solanacearum (EPPO A2 quarantine pest) have been carried out in Slovenia on both imported and domestic potatoes (seed and ware potatoes). From 1996 to 1999, 858 samples were tested and R. solanacearum was detected only in 4 consignments of imported early ware potatoes. In 2000, 647 samples were tested (277 samples of imported potatoes and 190 samples of domestic seed and ware potatoes). As a result, in December 2000, 1 sample of domestic ware potatoes was confirmed as being latently infected by R. solanacearum (tested tubers showed no symptoms). This sample had been collected in the northern part of Slovenia from stored ware potatoes originating from imported basic seed potatoes. Investigations were carried out to locate growers who had used potatoes from the same lot of imported seed potatoes. Some of the growers who had planted these seed potatoes for ware potato production were located. Investigations also showed that there was only one producer who had planted the potatoes concerned for of seed potato production, and that this has led to the production of 6 tons of certified seed potatoes in 2000. Additional tests were carried out to determine the extent of the disease and the results were all negative. However, according to the Slovenian legislation which is harmonized with the EU Directive 98/57/EC, eradication measures were taken. The 6 tons of seed potatoes multiplied from the imported lot concerned and 106 tons of other cultivars which were stored in the same storehouse as ware potatoes were destroyed. Storehouses, machinery and packaging material were disinfected. In fields where the imported seed lot was planted, production of potato, tomato, Brassica and other host plants of R. solanacearum was prohibited for the next 4 years, and elimination of volunteer plants and weed hosts was ordered. In 4 years time, for the first officially authorized potato-growing season, only ware production will be permitted using certified seed potatoes. In 2001, the survey will continue with special emphasis on fields which had been planted with the imported lot concerned and their surroundings.

Source: NPPO of Slovenia, 2001-05

Additional key words: absence

Computer codes: PSDMSO, SI

<u>2001/083</u> Details on the situation of several quarantine pests in Hungary in 2000

The NPPO of Hungary has recently informed the EPPO Secretariat of the situation of several quarantine pests in 2000 (the 1999 situation was presented in EPPO RS 2000/100).

- *Cryphonectria parasitica* (EPPO A2 quarantine pest): occurred on 5 sites (58 ha). The infested area did not increase significantly. Production sites of propagating material are free from it. **Present: only in 5 sites.**
- *Diabrotica virgifera* (EPPO A2 quarantine pest): as already reported in EPPO RS 2001/003, it continued to spread towards the north. In 2000, pheromone and yellow sticky traps caught a total of 16211 beetles in 15 counties. Larval damage was noted, mainly in monoculture maize, on 3130 ha in Baranya, Bács-Kiskun and Csongrád counties. Control methods against the adults were applied in more than 1000 ha in 2000. **Present: in 15 counties.**
- *Ditylenchus dipsaci* (EPPO A2 quarantine pest): an isolated focus was observed in 1 place in Maroslele (Csongrád county), on growers' propagation material of garlic in storage. **Present: only at 1 site (in Csongrád county).**
- *Erwinia amylovora* (EPPO A2 quarantine pest): was found in 18 counties (in 18234 private gardens and on 3780.35 ha of orchards, corresponding to 295150 infected trees). One nursery was found infected at Alsótekeres (already infected in 1999), in Fejér county. All other nurseries were found free from fireblight and are subject to regular phytosanitary inspections. **Present: in 18 counties, found in only 1 nursery.**
- *Globodera rostochiensis* (EPPO A2 quarantine pest): infested soils and crops were found on 41 isolated areas (442.6 ha) which were placed under quarantine. **Present: only at 41 isolated sites.**
- *Helicoverpa armigera* (EPPO A2 quarantine pest): occurred on maize crops in 26 isolated places (701.5 ha). **Present: only at 26 isolated sites.**
- *Puccinia horiana* (EPPO A2 quarantine pest): was observed in 1 place (0.1 ha) in Kiskunhalas (Bács-Kiskun county) in a grower's garden. **Present: only at 1 site.**
- *Ralstonia solanacearum* (EPPO A2 quarantine pest): as already reported in EPPO RS 2000/130, the bacterium was found in Hungary. In 2000, *R. solanacearum* was detected in 1 place on seed potatoes (16.5 ha at Hajdúszoboszló Hajdú-Bihar county) and in 6 places on ware potatoes (total of 91.8 ha; at Jászberény (Jász-Nagykun-Szolnok county); Újfehértó and Rakamaz (Szabolcs-Szatmár-Bereg county); Nádudvar, Nagyhegyes, Hajdúszoboszló (Hajdú-Bihar county)). Infested areas are submitted to regular phytosanitary inspections. **Present: only in six very limited areas, under eradication.**

Source: NPPO of Hungary, 2001-05.

Additional key words: detailed records

Computer codes: DIABVI, DITYDI, ENDOPA, ERWIAM, HELIAR, HETDRO, PSDMSO, PUCCHN, HU



<u>2001/084</u> First report of *Tomato spotted wilt tospovirus* in Slovenia

The NPPO of Slovenia recently informed the EPPO Secretariat that an outbreak of *Tomato spotted wilt tospovirus* (EPPO A2 quarantine pest) was recorded for the first time during a regular survey of glasshouses. The origin of this outbreak could be related to the import of cuttings of *Dendranthema*. 242 samples were collected from 129 glasshouses and tested for the presence of tospoviruses. Samples were mainly taken from *Dendranthema* plants but also from pepper, tomato, ornamentals and weeds. The presence of *Tomato spotted wilt tospovirus* was confirmed in 17 glasshouses. In 1 glasshouse, *Dendranthema* plants were highly infested by the virus and their destruction was ordered. In the other 16 glasshouses, infection was less severe and the following measures were taken to eradicate the disease and prevent any further spread: treatment of insect vectors (in particular against *Frankliniella occidentalis*), control of weeds, and implementation of stricter hygiene measures. In 2001, survey on *Tomato spotted wilt tospovirus* will be intensified. In particular, it will include testing of *Dendranthema* cuttings at import, and of outdoor host plants. The situation of *Tomato spotted wilt tospovirus* in Slovenia can be described as: **Present, found only under glasshouses at a few locations.**

Source: NPPO of Slovenia, 2001-05

Additional key words: new record

Computer codes: TMSWXX, SI



<u>2001/085</u> Tospoviruses of vegetable crops in Israel

In Israel, surveys were carried out on *Tomato spotted wilt tospovirus* (EPPO A2 quarantine pest) in vegetable crops grown in the field and in glasshouses. Plants showing symptoms were collected from 1994-01 to 1998-12 in the major vegetable-growing regions, and were tested by ELISA. *Tomato spotted wilt tospovirus* was found in the following crops: tomato, capsicum, aubergine, lettuce, cabbage and cucumber. The presence of the virus was associated with high populations of *Frankliniella occidentalis* (EPPO A2 quarantine pest). Seed transmission was also studied. The virus was detected by ELISA in seeds collected from naturally infected plants, but no virus transmission to progeny plants was obtained, up to 2 month after germination. Another tospovirus is reported from vegetable crops in Israel. During October 1997, 20-60 % of field-grown onions showed unusual symptoms of straw-coloured ringspots on leaves and flower stalks (see also EPPO RS 98/092). The presence of *Iris yellow spot tospovirus* (Alert List) was detected in diseased plants. A high incidence of the disease was observed in association with large populations of *Thrips tabaci*.

 Source: Gera, A.; Kritzman, A.; Cohen, J.; Raccah, B.; Antignus, Y. (2000) Tospoviruses infecting vegetable crops in Israel.
 Bulletin OEPP/EPPO Bulletin, 30(2), 289-292.

Additional key words: detailed records

Computer codes: IRYSXX, TMSWXX, IL

<u>2001/086</u> *Tomato spotted wilt tospovirus* found again in Finland

The NPPO of Finland has informed the EPPO Secretariat that *Tomato spotted wilt tospovirus* (EPPO A2 quarantine pest) was found in May 2001 at 1 production site of pot plants of New Guinea *Impatiens*. All infested plants were destroyed. This virus had been found in the past but was successfully eradicated. The origin of this introduction remains unknown. The situation of *Tomato spotted wilt tospovirus* in Finland can be described as follows: **Present:** found only at 1 production site of pot plants of New Guinea Impatiens, under eradication.

Source: NPPO of Finland, 2001-06.

Additional key words: detailed record

Computer codes: IMNSXX, FI

2001/087 First report of *Pepino mosaic potexvirus* in Italy

In the south of Sardegna (Italy), unusual virus symptoms were noticed in February and March 2001 on glasshouse tomatoes. The plants concerned were tomato cultivars Camone and Cronos grafted onto tomato rootstocks (cv. Beaufort) obtained from an Italian propagator. Symptoms were in fact first noticeable in October 2000 on a few plants, but by March 2001 more than 40 % of the tomato plants were affected by the disease. Symptoms were characterized by leaf chlorosis, scattered necrotic spots and mosaic. Some immature fruits showed colour alteration and later uneven ripening. Electron microscopy and serological assays revealed the presence of *Pepino mosaic potexvirus* (EPPO Alert List). This is the first report of this virus in Italy.

The situation of *Pepino mosaic potexvirus* in Italy can be described as follows: **Present:** found only in the south of Sardegna on glasshouse tomatoes.

Source: Roggero, P.; Masenga, V.; Lenzi, R.; Coghe, F.; Ena, S.; Winter, S. (2001) First report of *Pepino mosaic virus* in tomato in Italy. New Disease Reports, volume 3: February 2001 – July 2001. http://www.bspp.org.uk/ndr/jul2001/2201-24.htm

Additional key words: new record

Computer codes: PZMXXX, IT

2001/088 First report of *Pepino mosaic potexvirus* in Finland

The NPPO of Finland has informed the EPPO Secretariat that *Pepino mosaic potexvirus* (EPPO Alert List) was identified for the first time in Finland in March 2001. So far, the virus has been found at 6 tomato fruit production sites (glasshouses). Eradication measures have been taken (destruction of all infected tomato plants). The origin of the introduction remains unknown. The situation of *Pepino mosaic potexvirus* in Finland can be described as follows: **Present: found only at 6 tomato fruit production sites (glasshouses), under eradication**.

Source: NPPO of Finland, 2001-04 & 2001-06.

Additional key words: new record

Computer codes: PZMXXX, FI



<u>2001/089</u> Tomato viruses present in Tunisia

In Tunisia, according to 1996 data, tomatoes are grown on 23,800 ha, in irrigated fields and under glasshouses, and the annual production is about 750,000 t. Surveys were done to identify the viruses present on Tunisian tomato crops in the regions of Cap-Bon, Sahel and in the south of the country. In total, 257 tomato samples were collected form 1997 to 1999, and serologically tested (ELISA). As a result the following viruses were detected: *Cucumber mosaic cucumovirus, Tomato aspermy cucumuvirus, Potato Y potyvirus, Tobacco etch potyvirus, Tobacco rattle tobravirus, Alfalfa mosaic alfamovirus, Tomato spotted wilt tospovirus* (EPPO A2 quarantine pest), *Tomato ringspot nepovirus* (EPPO A2 quarantine pest), *Potato X potexvirus* was only found in Cap-Bon and Sahel, *Potato X potexvirus* was found only in Sahel and in the south, and *Tomato ringspot nepovirus* was found only in Sahel and in the south, and *Tomato ringspot nepovirus* was found only in Sahel and in the south, and *Tomato ringspot nepovirus* was found only in Sahel. *Tomato spotted wilt tospovirus* has been detected since the last two tomato growing seasons (1998/1999).

This study confirms the presence of *Tomato spotted wilt tospovirus*, and constitutes the first report of *Tomato ringspot nepovirus* in Tunisia. The situation of *Tomato spotted wilt tospovirus* in Tunisia can be described as follows: **Present: found in Cap-bon, Sahel and south regions**. The situation of *Tomato ringspot nepovirus* in Tunisia can be described as follows: **Present: found in Cap-bon, Sahel and** solters: **Present: only found in Sahel region**.

Source: Ben Moussa, A.; Makni, M.; Marrakchi, M. (2000) Identification of the principal viruses infecting tomato crops in Tunisia.
 Bulletin OEPP/EPPO Bulletin, 30(4), 293-296.

Additional key words: new record, detailed record

Computer codes: TMRSXX, TMSWX, TN



Tomato is an important and expanding crop in Algeria. Two surveys were carried out independently in 1988/89 and in 1997/98 on the possible presence of bacterial canker (*Clavibacter michiganensis* subsp. *michiganensis* – EPPO A2 quarantine pest) on tomato crops in the coastal region near Alger and in the Mitidja plain. Tomatoes grown in the field, under plastic tunnels and in nurseries were visually inspected and diseased samples were tested in the laboratory for the presence of *C. m.* subsp. *michiganensis*. In 1988/89, 85 growers (650 ha) were inspected and bacterial canker was observed in 13 production units. In 1997/98, 46 growers (400 ha) were inspected and 4 production units were infected. For the two surveys, the mean infection levels were 15.3% and 9.3%, respectively. All isolated strains were identified as *C. m.* subsp. *michiganensis*. According to the EPPO Secretariat, this is the first report of *C. m.* subsp. *michiganensis* in Algeria.

The situation of *C. m.* subsp. *michiganensis* in Algeria can be described as follows: **Present:** found in the coastal region near Alger and in the Mitidja plain.

Source: Benchabane, M.; Boutekrabt, A; Toua, D. (2000) Le chancre bactérien de la tomate en Algérie.
 Bulletin OEPP/EPPO Bulletin, 30(4), 337-339.

Additional key words: new record

Computer codes: CORBMI, DZ

<u>2001/091</u> Details on the situation of *Xanthomonas arboricola* pv. *pruni* and *Xanthomonas vesicatoria* in Slovenia

The NPPO of Slovenia recently informed the EPPO Secretariat of the present situation of *Xanthomonas arboricola* pv. *pruni* and *Xanthomonas vesicatoria* (both EPPO A2 quarantine pests) in Slovenia.

• Xanthomonas arboricola pv. pruni

Around 1996, severe symptoms of bacterial spot appeared on plums in the coastal Mediterranean region of Slovenia. Recently, a new outbreak was noticed in peach orchards in the same region. *X. arboricola* pv. *pruni* was identified by laboratory methods (isolation on growing medium, immunofluorescence, fatty acid profiles). Phytosanitary measures have been taken to eradicate the disease and prevent any further spread. Treatments with copper fungicides in autumn, early spring and later during the growing season were ordered in all infected orchards. Growers were also recommended to use certified planting material and to plant tolerant or less susceptible cultivars. The situation of *X. arboricola* pv. *pruni* in Slovenia can be described as follows: **Present: found only in the coastal Mediterranean region**.



• Xanthomonas vesicatoria

Bacterial spot of tomato and pepper occurs from time to time in Slovenia in warmer and more humid regions. During the last growing-season, samples were collected from capsicum plants showing symptoms at 3 production sites, in different regions. *Xanthomonas vesicatoria* was isolated from samples from 2 production sites: one near Nova Gorica (west coastal region) and the other from Kostanjevica (southern region). The presence of the bacterium was confirmed by immunofluorescence and comparison of fatty acid profiles. Phytosanitary measures were taken to prevent any further spread. Tomato and pepper cultivation was prohibited for the next 3 years on plots where positive samples had been taken. It was also recommended to tomato and pepper growers of the 2 regions concerned to use sterilized or heat-treated seeds and resistant cultivars. The situation of *X. vesicatoria* in Slovenia can be described as follows: **Present: sporadic (in 2000, near Nova Gorica and Kostanjevica).**

Source: NPPO of Slovenia, 2001-05

Additional key words: detailed records

Computer codes: XANTPR, XANTVE, SI

2001/092 Details on the situation of *Xanthomonas vesicatoria* in Yugoslavia

In Yugoslavia, *Xanthomonas vesicatoria* (EPPO A2 quarantine pest) was first described in 1957. On tomato crops, the bacterium is not considered of economic importance but the situation on sweet peppers (*Capsicum annuum*) is different as serious losses have been observed. Recent surveys confirmed this situation. Only one outbreak of *X. vesicatoria* was detected on tomato. In 1998, symptoms (corky scabs) were noted on mature tomato fruits in a single field, in the central part of the country. On capsicum, many diseased samples were collected from various localities in Yugoslavia. In this study, no resistant strains to streptomycin or to copper compounds were found.

Source: Obradović, A.; Mavridis, A.; Rudolph, K.; Arsenijević, M. (2000) Bacterial spot of capsicum and tomato in Yugoslavia.
 Bulletin OEPP/EPPO Bulletin, 30(4), 333-336.

Additional key words: detailed record

Computer codes: XANTVE, YU

2001/093 Details on the situation of *Xanthomonas vesicatoria* in southern Spain

During the 1993/97 growing seasons, surveys were carried out near Almería (southern Spain) on the occurrence of bacterial diseases of tomato. The province of Almería is a major tomatogrowing region, in particular for the production of tomatoes during cold period under protected conditions. Diseased tomato plants were collected from commercial crops (22 houses). 64 bacterial strains were isolated and identified. 41 strains were found pathogenic and the most frequently isolated pathogens were: *Erwinia amylovora* subsp. *carotovora*, *Pseudomonas corrugata*, *Pseudomonas syringae* pv. *tomato* and *Xanthomonas vesicatoria* (EPPO A2 quarantine pest).

Source: Cazorla, F.M.; Pérez-García, A.; Rivera, M.E.; Codina, J.C.; Torés, J.A.; de Vicente, A. (2000) Bacterial diseases of tomato in southern Spain: application of a detached tissue assay to evaluated bacterial pathogenicity.
 Bulletin OEPP/EPPO Bulletin, 30(4), 351-356.

Additional key words: detailed record

Computer codes: XANTVE, ES

2001/094A new phytoplasma disease of almond (*Prunus amygdalus*) in
Lebanon: Addition to the EPPO Alert List

The EPPO Secretariat recently received the note below, written by E. Choueiri, F. Jreijiri, S. Issa, (Agricultural Research Institute of Lebanon, Tal Amara, Rayak, Lebanon) and E. Verdin, J. Bové, M. Garnier (INRA, Villenave d'Ornon, France), on the presence of a new phytoplasma disease of almond in Lebanon. Considering the fact that this new disease has the potential to kill mature trees and therefore represents a threat to the production of almond in Mediterranean countries, the EPPO Secretariat decided to add it on the EPPO Alert List.

'During a survey conducted in October 1999 to establish the sanitary status of stone fruits in Lebanon, almond trees with symptoms of leaf yellowing, shoot proliferation, and dieback were observed in the Bekaa region. Such symptoms suggesting a phytoplasma infection, PCR analysis with universal primers for amplification of phytoplasma ribosomal RNA genes was carried out on DNA extracted from nine symptomatic trees and one symptomless tree in four different orchards, as well as from healthy almond trees collected in France. Amplification of the expected 1.8 kbp rDNA fragment from all symptomatic samples but not from the healthy or symptomless samples established the phytoplasma etiology of the disease. RFLP of the amplified DNA, showed that restriction profiles were different from those published for other phytoplasmas and in particular those infecting almond trees in Western Europe. Sequence analysis of the amplified DNA revealed that the phytoplasma belongs to the pigeon pea witches' broom cluster (PPWB). This indicates that a phytoplasma infection is occurring in



almond trees in Lebanon and for the first time, a phytoplasma of the PPWB group is shown to infect a *Prunus* species. This phytoplasma is killing almond trees within 5 years and represent a threat to European and Mediterranean countries.'

A new phytoplasma disease of almond (Prunus amygdalus)

Why	This new phytoplasma disease of almonds came to our attention because scientists
	(Choueiri et al., 2001) who have observed it in Lebanon alerted the EPPO Secretariat on
	their finding.
Where	Lebanon, in the Bekaa region. However, it is not known whether the disease is present in
	other parts of Lebanon or even in other countries.
On which plants	Almond (Prunus amygdalus).
Possible identity	A new phytoplasma belonging to the pigeon pea witches' broom cluster.
Damage	Affected trees show leaf yellowing, shoot proliferation and dieback. The disease can kill
-	almond trees within 5 years.
Transmission	Further studies are needed, in particular on possible insect vectors.
Pathway	Almond plants for planting or multiplication material from Lebanon.
Possible risks	For the moment only very few data is available on the extent of the disease, on its biology
	and epidemiology. However, as tree mortality is reported, it was felt that this disease could
	represent a threat for almond-producing countries.
Source(s)	E. Choueiri, F. Jreijiri, S. Issa, E. Verdin, J. Bové, M. & Garnier (2001). First report of a phytoplasma disease of Almond (<i>Prunus amygdalus</i>) in Lebanon. Plant disease (2001) in press
	Personal communications with Dr Choueiri (Agricultural Research Institute of Lebanon) and Dr Garnier (INRA, Villenave d'Ornon, France), 2001-05.
EPPO RS 2001/094	
Panel review date	- Entry date 2001-05

Additional key words: new pest

Computer codes: LB

2001/095 Studies on viruses present in *Agapanthus* grown in the south of France

Agapanthus species are grown in the south of France (Côte d'Azur) for ornamental purposes (gardens or cut flower production). In most cases, Agapanthus species are vegetatively propagated and viruses are likely to be disseminated through the multiplication process. Studies were carried out in the south of France on the presence of six viruses: Cymbidium mosaic potexvirus, Impatiens necrotic spot tospovirus (EPPO A2 quarantine pest), Odontoglossum ringspot tobamovirus and Tomato spotted wilt tospovirus (EPPO A2 quarantine pest). All six viruses were detected in tested material with the following incidence: Tomato spotted wilt tospovirus (30.9 %), Odontoglossum ringspot tobamovirus (19.5 %), Impatiens necrotic spot tospovirus (17.5 %), Cymbidium mosaic potexvirus (11.3 %), Cucumber mosaic cucumovirus (4.1 %), Arabis mosaic nepovirus (3.1 %). The authors concluded that to ensure a sustainable production of Agapanthus species it is now necessary to implement sanitation procedures, and in particular to select healthy mother plants.

Source: Pionnat, J.-C.; Favre, S. (2000) Des virus et des fleurs. Détection de virus dans des cultures de production et de collection d'agapanthes.
 Phytoma – La Défense des végétaux, no. 259, 23-25.



Additional key words: host plants

Computer codes: TMSWXX, IMNSXX, FR

2001/096 Control measures against *Ustilago scitaminea* in Morocco

In 1994, *Ustilago scitaminea* (sugarcane smut) was reported for the first time in Morocco (see EPPO RS 97/070). The disease rapidly spread to the major sugarcane-growing regions (Gharb, Loukkos). This extremely rapid spread was probably favoured by the widespread planting of susceptible cultivars and a long period of drought (1992/93). Following this introduction, phytosanitary measures were taken to control the disease. Studies showed that the incidence and severity of the disease could be maintained below the economic threshold by applying the following measures: use of resistant cultivars, destruction of highly infested fields, use of hot water treatment (together with fungicides) for the production of healthy planting material, general surveillance of sugarcane-growing regions, and information of growers.

Source: Nadif, A. ; Akalach, M. (1999) Ustilago scitaminea au Maroc: maîtrise d'une maladie de quarantaine.
 Bulletin OEPP/EPPO Bulletin, 29(4), 451-453.

Additional key words: control

Computer codes: USTISC, MO

2001/097 Neotoxoptera formosana does not occur in Canada

The Canadian Food Inspection Agency has recently informed the EPPO Secretariat that the onion aphid, *Neotoxoptera formosana* (EPPO Alert List) does not occur in Canada. The record appearing in the article of Barbagallo & Ciampolini (2000) and mentioned in the EPPO RS 2001/051 is not based on an actual field record but refers to interceptions of imports. The situation of *Neotoxoptera formosana* in Canada can be described as follows: **Absent, intercepted only**.

Source: Canadian Food Inspection Agency, 2001-05.

Barbagallo, S.; Ciampolini, M. (2000) The onion aphid, *Neotoxoptera formosana* (Takahashi), detected in Italy.
Bolletino di Zoologia Agraria et di Bachicoltura, Serie II, 32(3), 245-258.

Additional key words: denied record

Computer codes: NEOTFO, CA



<u>2001/098</u> <u>EPPO report on notifications of non-compliance (detection of regulated pests)</u>

The EPPO Secretariat has gathered the notifications of non-compliance (as they are now called by FAO ISPM no. 13) for 2001 received since the previous report (EPPO RS 2001/079) from the following countries: Algeria, Austria, Cyprus, Czech Republic, Denmark, France, Finland, Germany, Ireland, Israel, Lithuania, Netherlands, Poland, Portugal, Slovenia, Sweden, Switzerland, United Kingdom. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets. When the occurrence of a pest in a given country is not known to the EPPO Secretariat, this is indicated by an asterisk (*).

In addition, Hungary has sent its notifications of non-compliance for the whole year 2000, they are shown separately.

The EPPO Secretariat has selected notifications of non-compliance made because of the detection of regulated pests. Other notifications of non-compliance due to prohibited commodities, missing or invalid certificates, are not indicated. It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their notifications.

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Agrobacterium tumefaciens	Hippophae rhamnoides	Plants for planting	Russia	Hungary	1
Calandra oryzae, C. granaria, Tribolium confusum	Avena sativa	Stored products	Czech Republic	Hungary	1
Ceratitis capitata	Citrus nobilis	Fruits	Greece	Hungary	1
Ephestia elutella	Juglans regia	Stored products	Romania	Hungary	1
Globodera rostochiensis	Solanum tuberosum	Ware potatoes	Poland	Hungary	1
Lasioderma serricorne	Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum Nicotiana tabacum	Stored products Stored products Stored products Stored products Stored products Stored products	Bangladesh Brazil Tanzania Uganda USA Zimbabwe	Hungary Hungary Hungary Hungary Hungary Hungary	1 1 1 1 1
Quadraspidiotus perniciosus	Malus domestica	Fruits	Yugoslavia	Hungary	1
Scolytidae	Unspecified wood Unspecified wood Unspecified wood	Wood Wood Wood	Romania Russia Ukraine	Hungary Hungary Hungary	1 1 1
Spongospora subterranea	Solanum tuberosum	Seed potatoes	Netherlands	Hungary	1

• Hungarian notifications for 2000



	Solanum tuberosum	Ware potatoes	United Kingdom	Hungary	1
Tribolium confusum	Helianthus annuus	Stored products	Romania	Hungary	2

Notifications for 2001

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Acarus siro	Triticum durum	Stored products	USA	Algeria	1
Ambrosia artemisiifolia, A. trifida	Zea mays	Stored products	USA	Lithuania	1
Bemisia tabaci	Alternanthera reineckii 'rosaefolia'	Aquarium plants	Singapore	France	1
	Dipladenia	Cuttings	Israel	Denmark	1
	Echinodorus osiris, Anubias nana	Aquarium plants	Sri Lanka	Denmark	1
	Eryngium	Cut flowers	Vietnam	France	3
	Hibiscus	Cut flowers	Dominican Rep.	France	1
	Hibiscus	Cuttings	Netherlands	United Kingdom	1
	Hibiscus	Plants for planting	Netherlands	United Kingdom	1
	Hibiscus	Plants for planting	Slovakia ¹	Denmark	1
	Hygrophila	Aquarium plants	Israel	France	1
	Hygrophila corymbosa	Aquarium plants	Singapore	France	1
	Hygrophila salicifolia	Aquarium plants	Israel	France	1
	Hygrophila salicifolia	Aquarium plants	Singapore	United Kingdom	1
	Limnophila	Aquarium plants	Thailand	France	2
	Limnophila	Aquarium plants	Vietnam	France	2
	Manihot esculenta	Vegetables	Gambia	United Kingdom	1
	Manihot esculenta	Vegetables	Guinea	Ireland	1
	Manihot esculenta	Vegetables	Nigeria	United Kingdom	1
	Ornamentals	Pot plants	Netherlands	Poland	1
	Solidago	Cut flowers	Israel	Ireland	1
	Solidago	Cut flowers	Israel	United Kingdom	1
	Torenia	Cuttings	Israel	Denmark	1
Botrytis	Allium sativum	Vegetables	Niger	Algeria	1
Clavibacter michiganensis	Solanum tuberosum	Ware potatoes	Belgium ²	Netherlands	1
subsp. sepedonicus	Solanum tuberosum	Ware potatoes	Germany	Netherlands	5
	Solanum tuberosum	Ware potatoes	Germany	Poland	5
	Solanum tuberosum	Seed potatoes	Netherlands	France	1

¹ The NPPO of Slovakia confirmed the absence of *F. occidentalis* on its territory. The glasshouses from which the consignment originates and the Hibiscus plants grown there were inspected and results were negative. However, the grower had packed the plants into re-used packaging originating from Italy. It is suspected that infested packaging may have been the source of the infestation.

² This consignment of potatoes (cv. Agria) was intercepted in October 1999 and was thought to originate from Germany. However, in January 2000, it was discovered that these potatoes had been transported by a German company but originated from Belgium. So by that time, no potatoes cy. Agria were left in the firm concerned. On the fields which had grown these potatoes, volunteer plants were tested and all results were negative. In addition: 1,000 tons of cv. Nicola (40 samples) and 300 tons of cv. Bintje (12 samples) have been tested and all results were negative. The farm concerned is under supervision of the NPPO, and potato fields were sampled during the annual survey for ringrot and brown rot. No samples were found positive. The NPPO considers that Belgium is still free from *C. michiganensis* subsp. sepedonicus.



Cuscuta	Medicago sativa	Seeds	Slovenia	Poland	1
Cusculu	Trifolium resupinatum	Seeds	Italy	Poland	2
Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Ditylenchus dipsaci	Narcissus	Bulbs	United Kingdom	Netherlands	3
Frankliniella occidentalis	Alstroemeria	Cut flowers	Netherlands	Lithuania	1
	Dendranthema	Cut flowers	Netherlands	Poland	1
	Dianthus	Cut flowers	Netherlands	Lithuania	4
	Dianthus carvophyllus	Cut flowers	Slovakia	Czech Republic	1
	Dianthus Gynsophila	Cut flowers	Netherlands	Lithuania	1
	Dianthus, Gypsophila	Cut flowers	Notherlands	Littuania	1
	Dianinus, Heitaninus		Ineuteriands		1
	Gypsophila	Cut flowers	Israel	Lithuania	I
	Helianthus, Gypsophila	Cut flowers	Netherlands	Lithuania	1
	Iris	Cut flowers	Netherlands	Lithuania	1
	Ornamentals	Pot plants	Germany	Poland	1
	Rosa	Cut flowers	Netherlands	Lithuania	2
	Rosa, Dianthus, Helianthus	Cut flowers	Netherlands	Lithuania	1
Globodera rostochiensis	Prunus cerasus	Plants for planting	Estonia	Finland	1
Helicoverna armigera	Dianthus	Cut flowers	Israel	Netherlands	14
lieneo, erpa armigera	Phaseolus vulgaris	Vegetables	Kenva	Netherlands	1
	Pisum satiyum	Vegetables	Kenya	Netherlands	1
	Disum sativum	Vegetables	Zimbahawa	I united Wine dam	1
	Pisum sativum	vegetables	Zimbabwe	United Kingdom	1
Helminthosporium solani	Solanum tuberosum	Seed potatoes	Netherlands	Algeria	1
Helminthosporium solani, Fusarium	Solanum tuberosum	Seed potatoes	France	Algeria	1
Hemiberlesia rapax	Laurus nobilis	Plants for planting	Portugal	United Kingdom	1
Homoptera	Polyscias	Plants for planting	Costa Rica	France	1
Insects	Cycas revoluta	Plants for planting	Costa Rica	France	1
Iva	Zea mays	Stored products	Ukraine	Poland	7
Lentinotarsa decemlineata	Lactuca sativa	Vegetables	France	United Kingdom	1
	Petroselinum crispum	Vegetables	Italy	United Kingdom	5
Liriomyza	Dendranthema	Cut flowers	Colombia	France	1
Lintontysa	Helianthus annuus	Cut flowers	Tunicia	France	1
	Deimum basilieum	Vagatablas	Theiland	Donmark	1
	Ocimum basilicum	Vegetables	Vistuan	Deninark	4
	Ocimum basilicum	Vegetables	Vietnam	France	1
	Ocimum sanctum	Vegetables	Thailand	France	1
	Solidago	Cut flowers	Israel	France	1
Liriomyza bryoniae	Arelia, Gypsophila, Nephrolepis	Cut flowers	Israel	Czech Republic	1
Liriomyza huidobrensis	Apium graveolens	Vegetables	Spain	United Kingdom	1
	Aster thomsonii	Cut flowers	Netherlands	United Kingdom	1
	Runlaurum	Cut flowers	Israel	Ireland	2
	Buplourum ariffithii	Cut flowers	Israel	United Kingdom	∠ ว
	Carthamus tir starius	Cut flowers	Israel	United Vingdam	2
	Carinamus unctorius	Cut nowers	ISIACI		2
	Denaranthema	Cut nowers	Inetheriands	ireland	2
	Dianthus barbatus	Cut flowers	Italy	Czech Republic	1
	Dianthus barbatus	Cut flowers	Italy	United Kingdom	1



Pest	Eryngium alpinum Gypsophila Spinacia oleracea Consignment	Cut flowers Cut flowers Vegetables Type of commodity	Israel Israel Cyprus Country of origin	United Kingdom Czech Republic United Kingdom C. of destination	1 2 1 nb
Liriomyza trifolii	Gypsophila	Cut flowers	Spain	United Kingdom	1
Microtheca ochrolema	Nasturtium officinale	Vegetables	USA	United Kingdom	1
Mycocentrospora acerina	Daucus carota	Vegetables	Belgium	Israel	2
Opogona sacchari	Yucca	Plants for planting	Netherlands	United Kingdom	1
<i>Oryzaephilus surinamensis,</i> Acaridae	Secale cereale	Stored products	Denmark	Poland	1
Pepino mosaic potexvirus	Lycopersicon esculentum Lycopersicon esculentum	Fruits Fruits	Belgium ³ Morocco ⁴	United Kingdom France	1 1
Puccinia horiana	Dendranthema Dendranthema	Cut flowers Cut flowers	(Thailand) Netherlands	Portugal Czech Republic	1 1
Ralstonia solanacearum	Solanum tuberosum Solanum tuberosum	Ware potatoes Ware potatoes	Egypt Egypt	Germany United Kingdom	1 1
Septoria passifloricola	Passiflora	Cut flowers	Zambia	United Kingdom	1
Sitophilus	Triticum durum	Stored products	Italy	Algeria	1
Sitophilus granarium, Tribolium	Hordeum vulgare	Stored products	Czech Republic	Poland	2
Sitophilus oryzae	Hordeum vulgare	Stored products	Ukraine	Poland	5
Stictococcus sjostedti, Pyralidae, Tortricidae	Chrysophyllum	Fruits	Nigeria	United Kingdom	1
Thrips palmi	Celosia Dendrobium	Cut flowers Cut flowers	Ghana* Thailand	Netherlands Netherlands	1 1
Tomato spotted wilt tospovirus	Impatiens	Plants for planting	(Spain, Canary isl.)	Sweden	1
Tribolium	Hordeum vulgare	Stored products	Slovakia	Poland	2
Tribolium, Cryptolestes	Zea mays	Stored products	Hungary	Slovenia	1

³ Concerning the situation of *Pepino mosaic potexvirus*, the NPPO of Belgium stated that a survey has been carried out in the 2 Belgian firms which produce tomato plants for other growers. Tomato samples were tested and all results were negative. However, during quality control, tomato fruits showing suspect symptoms were tested. The virus was found in 5 samples but the origin of these infections could not be traced.

⁴ Following this interception, the NPPO of Morocco has immediately started to investigate the production sites of the tomato-growing firm concerned. Its whole production area (175 ha of glasshouse tomato, i.e. 1,750,00 tomato plants) was inspected during the growing season, no symptoms were observed on fruits. In addition, leaf samples showing suspect symptoms were tested in the laboratory (ELISA, electronic microscopy), as well as a few fruits collected at the packing unit and showing abnormal colorations. All results were negative. Further biological tests on tobacco are undergoing. Surveys are continuing at other tomato farms located in the same region. The NPPO considers that Pepino mosaic potexvirus is absent in Morocco.



ferrugineus

• Fruit flies

Pest	Consignment	Country of origin	C. of destination	nb
Bactrocera latifrons	Capsicum frutescens	Thailand	France	2
Ceratitis	Mangifera indica	Cameroon	France	2
	Mangifera indica	Côte d'Ivoire	France	1
	Mangifera indica	Kenya	France	1
Ceratitis anonae	Chrysophyllum	Nigeria	United Kingdom	1
Ceratitis capitata	Citrus clementina	Italy	Czech Republic	1
	Citrus sinensis	Italy	Slovenia	1
Tephritidae	Capsicum frutescens	Thailand	France	11
	Mangifera indica	Cameroon	France	1
	Mangifera indica	Dominican Rep.	France	1
	Mangifera indica	Mali	France	1
	Mangifera indica	Thailand	France	1
	Psidium guajava	Thailand	France	1
	Trichosanthes cucumerina	Mauritius	France	1

• Wood

Pest	Consignment	Type of commodity	Country of origin	C. of destination	nb
Cryphonectria parasitica	Castanea sativa	Wood and bark	Russia	Italy	1
Grub holes > 3 mm	Conifer Conifer and non-conifer Conifer and non-conifer Non-conifer Unspecified Unspecified Unspecified	Packing wood Packing wood Packing wood Packing wood Packing wood Packing wood	China Japan USA China China USA	Germany Finland Ireland Denmark Finland Finland	2 1 2 1 2 1 2
Ips	Unspecified	Wood	Romania	Algeria	1
<i>Monochamus</i> and grub holes > 3mm	Conifer Conifer and non-conifer	Packing wood Packing wood	China China	Ireland Ireland	1 1
Monochamus, Scolytidae	Picea abies	Wood	Ukraine	Poland	1
Scolytidae, Cerambicydae and grub holes > 3 mm	Conifer	Packing wood	China	Ireland	1
Tetropium castaneum	Unspecified	Wood	Austria	Algeria	1
Xyloterus lineatus	Picea abies	Wood	Lithuania	Poland	1



• Bonsais

Pest	Consignment	Country of origin	Country of destination	nb
Anomala orientalis, Xiphinema americanum	Ilex crenata	Japan	Netherlands	1
Anomala orientalis, Xiphinema americanum	Ilex crenata, Ginkgo biloba	Japan	Netherlands	1
Rhizoecus hibisci	Ficus	China	Netherlands	2
Xiphinema americanum	Podocarpus Enkianthus, Ilex Enkianthus perulatus, Taxus cuspidata	China Japan Japan	Netherlands Netherlands Netherlands	1 1 1

Source: EPPO Secretariat, 2001-05. NPPOs of Belgium (2001-05, 2001-06), Morocco (2001-04) and Slovakia (2001-05).