# **EPPO**

## Reporting

## Service

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#### <u>96/125</u> New data on pests and diseases of quarantine importance

By browsing through the literature, the EPPO Secretariat has noted the following items of interest concerning several pests and diseases of quarantine importance.

#### New records

- So far, the only grapevine yellows found in Germany was referred to as 'Vergilbungskrankheit' (VK). Recently, a non-VK grapevine yellows was found and identified as grapevine flavescence dorée (EPPO A2 quarantine pest). Review of Plant Pathology, 75(6), p 516 (4034).
- <u>Puccinia pelargonii-zonalis</u> (EPPO A2 quarantine pest) was reported for the first time on <u>Pelargonium odoratissimum</u> in Colombia. Review of Plant Pathology, 75(6), p 464 (3575).
- Tomato spotted wilt tospovirus (potential EPPO A2 quarantine pest) is present in Saudi Arabia in tomatoes growing in the Eastern Province. Review of Agricultural Entomology, 84(6), p 674 (5608).
- <u>Verticillium albo-atrum</u> (EPPO A2 quarantine pest) is present in Ukraine, and is considered as one of the main causes of yield losses on lucerne. Review of Plant Pathology, 75(6), p 488 (3801).
- <u>Xanthomonas axonopodis</u> pv. <u>phaseoli</u> (<u>X. campestris</u> pv. <u>phaseoli</u> EPPO A2 quarantine pest) is present in Jordan, in the Jordan valley. Review of Plant Pathology, 75(6), p 491 (3824).
- Surveys on the Diptera of Bermuda have been carried out from 1987 to 1991, and all previous literature records have been verified as far as possible. 258 species in 44 families have been recorded. <u>Anastrepha obliqua</u> (EPPO A1 quarantine pest) is considered as an interception which has **not** become established. Among new records, <u>Liriomyza trifolii</u> (EPPO A2 quarantine pest) is cited.

Review of Agricultural Entomology, 84(6), p 617 (5155).

 <u>Bemisia tabaci</u> (EPPO A2 quarantine pest) is present in Benin, and is associated with African cassava mosaic virus. Review of Agricultural Entomology, 84(6), p 669 (5574).

#### **Detailed record**

 Citrus ringspot virus (EU Annex II/A1) was found on mandarin and sweet orange in Punjab, India. Conspicuous chlorotic rings were observed. Severely affected plants showed decline symptoms, resulting in low fruit production. Review of Plant Pathology, 75(6), p 517 (4046).

Additional key words: new records, detailed	Computer codes: ANTSOB, BEMITA, CSRSXX,
records, denied record	CVFDXX, LIRITR, PUCCPZ, TMSWXX, VERTAA,
	XANTPH, BJ, BM, CO, DE, IN, SA, UA,

#### <u>96/126</u> <u>Geographical distribution of Russian A2 quarantine pests in</u> <u>Russia: pathogens and weeds</u>

EPPO Reporting Service 96/119 provided detailed information about the distribution of the insects and nematodes of the Russian A2 quarantine list within the territory of the Russian Federation. Similar information is now given for quarantine pathogens and weeds. As in the previous case, the data is related to the 6 major zones into which Russia is now being divided for the purposes of recording pest distribution (RS 96/059) and is based on surveys conducted in 1994.

#### Pathogens

#### Cochliobolus heterostrophus

Southern Russia: Adygeya, Kabardino-Balkar, Karachaevo-Cherkess, Krasnodar

#### Diaporthe helianthi

Southern Russia: Adygeya, Kabardino-Balkar, Karachaevo-Cherkess, Krasnodar, Rostov, Stavropol

#### Diaporthe phaseolorum f.sp. caulivora

Southern Russia: Krasnodar

#### Plum pox potyvirus

Southern Russia: Kabardino-Balkar, Stavropol, Volgograd

#### Synchytrium endobioticum

Northern Russia:Kareliya

*Central Russia*: Bryansk, Ivanovo, Kaliningrad, Kaluga, Kirov, Kostroma, Leningrad, Lipetsk, Marii El, Mordoviya, Moskva, Nizhnyi Novgorod, Novgorod, Orel, Penza, Pskov, Ryazan, Smolensk, Tambov, Tver', Vladimir, Vologda, Yaroslavl *Southern Russia*: Adygeya, Karachaevo-Cherkess, Kursk, Severnaya Osetiya-Alaniya, Volgograd, Voronezh

#### <u>Weeds</u>

#### Acroptilon repens

Central Russia: Moskva

Southern Russia: Astrakhan, Dagestan, Kalmykiya, Krasnodar, Orenburg, Rostov, Samara, Saratov, Stavropol, Volgograd, Voronezh

#### Ambrosia artemisiifolia

Southern Russia: Adygeya, Astrakhan, Belgorod, Dagestan, Ingushetiya, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Rostov, Severnaya Osetiya-Alaniya, Stavropol, Volgograd, Voronezh *Far East*: Khabarovsk, Primor'e

#### Ambrosia psilostachya

Central Russia: Bashkortostan Southern Russia: Orenburg, Samara, Stavropol, Volgograd

#### Ambrosia trifida

*Central Russia*: Bashkortostan, Penza, Ryazan, Tatarstan *Southern Russia*: Ingushetiya, Orenburg, Samara, Saratov, Severnaya Osetiya-Alaniya, Volgograd, Voronezh

#### Cuscuta spp.

*Central Russia*: Ivanovo, Kaliningrad, Kaluga, Lipetsk, Marii El, Moskva, Orel, Pskov, Smolensk, Tambov, Tver', Vladimir

Southern Russia: Adygeya, Astrakhan, Belgorod, Dagestan, Ingushetiya, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Kursk, Orenburg, Rostov, Samara, Saratov, Severnaya Osetiya-Alaniya, Stavropol, Volgograd, Voronezh Western Siberia: Altai, Chelyabinsk, Khakassiya, Kurgan Eastern Siberia: Irkutsk, Krasnoyarsk, Sakha (Yakutiya), Tyva Far East: Amur, Evrei, Khabarovsk, Primor'e

#### Solanum rostratum

*Southern Russia*: Dagestan, Kabardino-Balkar, Kalmykiya, Karachaevo-Cherkess, Krasnodar, Rostov, Severnaya Osetiya-Alaniya, Stavropol

#### Solanum triflorum

Western Siberia: Altai, Omsk

#### Source: Plant Protection Service of Russia, 1995.

#### 96/127 Views of the EPPO Working Party on Phytosanitary Regulations on *Tilletia indica*

The EPPO Working Party on Phytosanitary Regulations (1996-06-25/28) took note of renewed international concern about <u>*Tilletia indica*</u> since it was detected in USA (see EPPO RS 96/062) and also intercepted in recent months by several EPPO countries in shipments of wheat from India. The present risk to the EPPO region was discussed. The Working Party took the view that <u>*T. indica*</u> should be maintained on the A1 list. Noting that the currently recommended requirements for <u>*T. indica*</u> concerned seeds of wheat but not grain, the Working Party called on the Panel on Phytosanitary Regulations to re-evaluated the risk from grain. It advised Member Governments, in the interim, to take whatever measures they considered necessary for grain, including in particular the requirement of the phytosanitary certificate from countries where the disease occurs. Further discussions will continue within EPPO.

Source: EPPO Secretariat, 1996-06.

#### <u>96/128</u> First report of Alternaria mali in Yugoslavia

Between 1993 and 1995, a species of <u>Alternaria</u> was isolated from leaf spots on Red Delicious apples collected from seven locations in the Federal Republic of Yugoslavia. Symptoms observed were characterized by circular leaf spots, tan to brown, 2 to 5 mm in diameter and often surrounded by a purple halo. Severely affected leaves fall, and up to

50 % defoliation was observed in some orchards. The fungus was identified as <u>Alternaria mali</u> (EU Annex II/A1) based on conidial morphology; Koch's postulates were completed. In laboratory studies, symptoms similar to those observed in orchards could be reproduced on leaves of Red Delicious and Mollie's Delicious by inoculation of a conidial suspension. Golden Delicious, Idared and Jonagold appeared to be resistant. This is the first report of <u>A. mali</u> in Yugoslavia. According to the authors, this fungus has been reported from Japan, China, Korea, and USA (North Carolina - see EPPO RS 96/128 for complete distribution list). This is the first report of <u>A. mali</u> in Europe.

Source: Bulajic, A.; Filajdic, N.; Babovic, M.; Sutton, T.B. (1996) First report of <u>Alternaria mali</u> on apples in Yugoslavia.
 Plant Disease, 80(6), p709.

Additional key words: new record

Computer codes: ALTEMA, YU

#### <u>96/129</u> EPPO Distribution List for Alternaria mali

Due to the new record of <u>Alternaria mali</u> in Yugoslavia (see EPPO RS 96/127), the distribution list of this pathogen can be modified as follows:

#### EPPO Distribution List: Alternaria mali

EPPO region: Yugoslavia. Asia: China, India, Japan, Korea Republic, Taiwan. North America: Canada, USA. South America: Chile. Oceania: Australia.

## This distribution list replaces all previous published EPPO Distribution Lists on *Alternaria mali*!

Source: EPPO Secretariat, 1996-07.

#### 96/130 Tomato mottle geminivirus found in Puerto Rico

During spring 1995, in four locations in Puerto Rico, commercial tomato fields showed nearly 100 % symptoms of virus-like disease. A small proportion of plants (<10 %) exhibited a yellow foliar mottle, and the main symptoms were severe leaf curl, stunting and cracking of tomato fruits. Quality of the fruit was reduced, and up to 80 % yield losses were observed. Transmission (by grafting and by <u>Bemisia tabaci</u> biotype B) and molecular studies were carried out to characterize the causal agent(s). The results showed that two geminiviruses were involved. The geminivirus causing the yellow mottle symptom was

99 % identical to tomato mottle geminivirus (EPPO A1 quarantine pest) from Florida. The other geminivirus causing severe symptoms seems to be a previously uncharacterized bipartite whitefly-transmitted geminivirus, which is thought to be indigenous to Puerto Rico. This is the first report of tomato mottle geminivirus from Puerto Rico.

Source: Brown, J.K., Bird, J.; Banks, G.; Sosa, M.; Kiesler, K.; Cabrera, I.; Fornaris, G. (1995) First report of an epidemic in tomato caused by two whitefly-transmitted geminiviruses in Puerto Rico. Plant Disease, 79(12), p 1250.

Additional key words: new record

Computer codes: TMMOXX, PR

#### <u>96/131</u> First report of tomato yellow leaf curl geminivirus and tomato ringspot nepovirus in Pakistan

Studies were carried out in Malakand, in Pakistan, to investigate incidence, aetiology and epidemiology of viruses infecting winter tomatoes. On the basis of serology and biology, the following viruses were found: tomato mosaic tobamovirus, potato Y potyvirus, potato X potexvirus, tomato yellow top virus, tomato yellow leaf curl geminivirus (EPPO A2 quarantine pest), tomato ringspot nepovirus (EPPO A2 quarantine pest), tomato spotted wilt tospovirus, and potato leaf roll luteovirus. These are the first records of tomato yellow leaf curl geminivirus and tomato ringspot nepovirus in Pakistan.

Source: Hassan, S. (1995) Investigations on virus diseases of tomato in Malakand, Pakistan.
 Sarhad Journal of Agriculture, 11(1), 89-96.

Additional key words: new records

Computer codes: TMRSXX, TMYLCX, PK

#### <u>96/132</u> Situation of tomato yellow leaf curl geminivirus in Iran

Tomato yellow leaf curl geminivirus (EPPO A2 quarantine pest) has recently been reported from Iran (see EPPO RS 94/190). In some regions the impact of the disease has been so severe that some farmers were forced to shift from tomato to aubergine or other crops. A limited survey using the dot-blot hybridization assay was conducted. Tomato crops in 10 major tomato-growing provinces of Iran were screened for the presence of symptoms and samples from diseased plants were tested. The results showed that tomato yellow leaf curl geminivirus is present in southern provinces of Iran (Sistan Baluchestan, Kerman, Hormozgan, Bushehr, Khuzestan), but not in the northern provinces, although the vector <u>Bemisia tabaci</u> is present in the majority of the geographical locations studied.

Source: Hajimorad, M.R.; Kheyr-Pour, A.; Alavi, V.; Ahoonmanesh, A.; Bahar, M.; Rezaian, M.A.; Gronenborn, B.; (1996) Identification of whitefly transmitted tomato yellow leaf curl geminivirus from Iran and a survey of its distribution with molecular probes.
 Plant Pathology, 45(3), 418-425.

Additional key words: detailed record

Computer codes: TMYLCX, IR

#### <u>96/133</u> First report of Colletotrichum acutatum in Israel

Strawberry anthracnose caused by <u>Colletotrichum acutatum</u> (EU Annex II/A2) was detected in nurseries and in the fields in Israel, in 1994. In 1995, most of the strawberry nurseries were heavily infected with the pathogen, which resulted in major collapse of transplants in the field. The disease was subsequently found on flowers, green and ripe fruit at the end of the season. In order to limit the spread of the disease, several measures including the use of certified planting material, removal of infected plant material from the field, distance between nurseries and production fields, soil fumigation, chemical treatment, are recommended. This is the first report of <u>C. acutatum</u> in Israel.

Source: Freeman, S. (1996) Occurrence and identification of <u>Colletotrichum</u> acutatum responsible for strawberry anthracnose in Israel.
 Abstract of a paper presented at the 17th Congress of the Israeli Phytopathological Society, 1996-01-18.
 Phytoparasitica, 24(2), p 137.

Additional key words: new record

Computer codes: COLLAC, IL

#### <u>96/134</u> Colletotrichum acutatum on ornamental lupin in United Kingdom

Anthacnose of ornamental lupin (*Lupinus polyphyllus* and its hybrids) due to <u>*Colletotrichum acutatum*</u> (EU Annex II/A2) was observed for the first time in autumn 1989, in three nurseries in East Anglia, United Kingdom. The disease was observed on seedling, pot-grown plants under protection and field-grown plants. In 1989, only a few crops were affected but the disease was widespread on container-grown lupins, mainly grown under protection in Cambridgeshire, Devon, Hampshire, Yorkshire and Lancashire. Losses on ornamental lupin had also been reported in France, New Zealand and USA. Studies were carried out on seed transmission of <u>*C. acutatum*</u> and on its host range. Seedborne infection was demonstrated on lupin. In pathogenicity tests (using isolates from lupin seeds), symptoms of <u>*C. acutatum*</u> developed only on plants of <u>*Lupinus*</u> spp. Slight symptoms were observed on <u>*Pisum sativum*</u>, <u>*Vicia sativa*</u> and <u>*Lathyrus odoratus*</u>, but none on <u>*Vicia faba*</u>, <u>*Phaseolus coccineus*, <u>*P. vulgaris*</u> and <u>*Onobrychis viciifolia*</u>. Further studies are needed to determine whether isolates from <u>*Lupinus*</u> spp. can infect other hosts of <u>*C. acutatum*</u>, notably anemone and strawberry.</u>

# Source: Reed, P.J.; Dickens, J.S.W.; O'Neill, T.M. (1996) Occurrence of anthracnose (*Colletotrichum acutatum*) on ornamental lupin in the United Kingdom. Plant Pathology, 45(2), 245-248.

Additional key words: host plant

Computer codes: COLLAC, GB

#### <u>96/135</u> Situation of pear decline phytoplasma in Spain

Symptoms of pear decline phytoplasma (EPPO A2 quarantine pest) have been observed in Spain in the Valle del Ebro since the 1960s. Studies were carried out around Lleida (Catalunya) in 1986 but gave negative results. More recently, with new detection techniques it was possible to identify pear decline phytoplasma in samples coming from the Lleida region and also in samples submitted by different regional plant health bodies from Aragon, Extramadura and Valencia regions. In addition, the pathogen was detected in <u>Cacopsylla pyri</u>. Although it has not been fully demonstrated that this insect is a vector of the disease, it provides an indication of possible transmission. The authors stressed that further studies are necessary for a better understanding of the situation of this pathogen in Spain.

Source: Avinent, L.; Llacer, G. (1996) El decaimiento del peral. Phytoma-España, no. 79, 21-26.

Additional key words: detailed record

Computer codes: PRDXXX, ES

#### <u>96/136</u> Pear decline phytoplasma found on Japanese pear in France

Since autumn 1992, symptoms of pear decline have been observed in experimental and commercial orchards of Japanese pear (*Pyrus pyrifolia*), in the Southwest of France. In late summer, premature leaf reddening on cv. Kosui and small chlorotic leaves on cv. Shinseiki and Nijieiki were observed. Leaf midribs and major veins were accentuated. Affected trees presented reduced shoot growth and early leaf fall. Molecular studies using PCR and RFLP showed that pear decline phytoplasma (EPPO A2 quarantine pest) was present. This is the first report of pear decline phytoplasma on Japanese pear in France. Among the Japanese cultivar tested, cv. Shinseiki appeared as the most susceptible. It can be recalled that this pathogen had also been observed on Japanese pear in Italy (EPPO RS 95/083).

Source: Jarausch, W.; Dosba, F. (1995) First report of pear decline phytoplasmas on nashi pears (*Pyrus pyrifolia*) in France.
 Plant Disease, 79(12), p 1250.

Additional key words: host plant

Computer codes: PRDXXX, FR

#### <u>96/137</u> <u>Citrus mosaic disease in India is associated with a badnavirus</u>

Studies on citrus mosaic disease (EU Annex II/A1) have been carried out in India, in collaboration with USA. This disease is widely distributed in India, especially on sweet orange (*Citrus sinensis*) and pummelo (*Citrus grandis*). Symptoms in the field are characterized by a bright yellow mottling of the leaves and yellow flecking along the veins. Citrus mosaic disease seems to be of great economic importance to the Indian citrus industry. For example, the incidence of the disease ranges from 10 to 70 % in Satgudi sweet orange orchards in Andhra Pradesh. Losses were apparent on Satgudi sweet orange in Andhra Pradesh and Karnataka, as several orchards with trees of 4 to 10 years old were abandoned since they were no longer productive. Reduction of fruit yield could reach 77 % in trees of 10 years old, and fruit from affected trees could present a 10 % reduction in juice and ascorbic acid. Citrus mosaic disease has been recorded in up to 46 % of trees in some commercial nurseries at Kodur (Andhra Pradesh). Its occurrence in nurseries suggested that transmission could occur through budwood.

The authors have shown that a previously unreported badnavirus was associated with this disease. The virus had  $30 \times 150$  nm non-enveloped bacilliform particles typical of badnaviruses. ISEM studies revealed that the virus is serologically related to sugarcane bacilliform badnavirus and to 8 other badnaviruses. PCR using

oligonucleotide primers specific to badnaviruses gave a product similar in size to that obtained with other badnaviruses which have been shown to contain dsDNA genomes. The name citrus mosaic badnavirus was proposed, and it is noted that this is the first report of a badnavirus in citrus. The authors have also found that the virus could be transmitted by grafting and dodder to 13 of 14 citrus species and cultivars commonly used, but not by the aphids (*Myzus persicae*, *Aphis gossypii*) and mealy bugs (*Planococcus citri*) tested. It was also transmitted by mechanical inoculation from symptomatic citrus to healthy *Citrus decumana*, a native citrus species in India. It can be recalled that mosaic diseases of citrus have so far been only reported from India and Japan. The authors have observed in previous studies (unpublished) that citrus mosaic badnavirus was not serologically related to the Japanese citrus mosaic. In addition, the Japanese mosaic disease is associated with isometric particles, and is thought to be a strain of satsuma dwarf 'nepovirus' (EPPO A2 quarantine pest).

Source: Ahlawat, Y.S.; Pant, R.P.; Lockhart, B.E.L.; Srivastava, M.; Chakraborty, N.K.; Varma, A. (1996) Association of a badnavirus with citrus mosaic disease in India. Plant Disease, 80(5), 590-592.

Additional key words: taxonomy

Computer codes: CSSDXX

#### 96/138 Quarantine treatment against Unaspis yanonensis on Satsuma

A standard quarantine treatment (methyl bromide fumigation) against mealybugs like <u>*Planococcus kraunhiae*</u> and <u>*Pseudococcus citriculus*</u> is applied on Satsumas (<u>*Citrus unshiu*</u>) exported from Japan to USA. Further studies were carried out in Japan to check whether this treatment was also effective against other species like <u>*Eotetranychus kankitus*</u>, <u>*Panonychus citri*</u> and <u>*Unaspis yanonensis*</u> (EPPO A2 quarantine pest), liable to be present on Satsumas. Results showed that the standard fumigation of Satsuma mandarins with methyl bromide (48 g/m3 for 2 hours at 15 °C) was also effective against <u>*E. kankitus*</u>, <u>*P. citri*</u> and <u>*U. yanonensis*</u>.

Source: Mizobuchi, M.; Misumi, T.; Kawakami, F.; Tao, M. (1995) A methyl bromide quarantine treatment to control <u>Eotetranychus kankitus</u>, citrus red mite and arrowhead scale on Satsuma mandarins for export to the United States.
 Research Bulletin of the Plant Protection Service of Japan, 31, 79-82.

Additional key words: quarantine treatment

Computer codes: UNASYA

#### 96/139 Studies on seed-transmission of Pantoea (Erwinia) stewartii

Studies have been carried out in United States on the seed transmission (plant-toseed and seed-to-seedling) of Pantoea (Erwinia) stewartii (EPPO A2 quarantine pest), considering also the influence of resistant and susceptible seed parents. The authors noted that differences in rates of transmission of P. stewartii reported in the early literature and in recent studies, where only very low transmission is observed (e.g. 29 infected seedlings from 53,600 seeds from infected plants), may be partly due to improved levels of resistance in maize cultivars and hybrids. In the field, plants of sweet maize and maize were inoculated with a rifampicin-resistant strain or wildtype strains of P. stewartii, seeds produced were tested for the bacterium and the transmission from seed to seedling was evaluated in field and greenhouse plantings. Results showed that P. stewartii was detected in seeds produced on four hybrids which had presented systemic symptoms after leaf inoculation. But the bacterium was not detected in cultivars and hybrids which did not show systemic symptoms after leaf inoculation. When plants were inoculated in ear shoots, ear shanks or silk channels, P. stewartii could then be isolated from cob and shank tissues and from seeds. The authors pointed out that in their studies, there was no evidence of seedto-seedling transmission of P. stewartii when over 75,000 seeds from infected plants were planted in field or glasshouse trials. They felt that this could be due to the limited extent to which seed-parent plants were infected, as systemic infection was only observed in a few cases. They concluded that the risk of transmitting P. stewartii to seedlings is nearly nil for seeds obtained from plants with less than 50 % leaf area diseased, and that guarantine restrictions imposed on maize seeds will need to be revised. This statement will certainly stimulate further discussions on this difficult subject of seed transmission.

 Source: Khan, A.; Ries, S.M.; Pataky, J.K. (1996) Transmission of <u>Erwinia</u> stewartii</u> through seeds of resistant and susceptible field and sweet corn.
 Plant Disease, 80(4), 398-403.

Additional key words: epidemiology

Computer codes: ERWIST

#### <u>96/140</u> Potential of *Orius sauteri* as a biocontrol agent against *Thrips* palmi

Studies have been carried out in Japan on the potential of <u>Orius sauteri</u> as a biocontrol agent against <u>Thrips palmi</u> (EPPO A1 quarantine pest). <u>Orius sauteri</u> is a predator present in Japan, Korea, China and Russian Far East. In Japan, <u>O. sauteri</u> is a major predator of thrips (<u>T. palmi</u>, <u>T. setosus</u>, <u>Mycterothrips glycines</u>) in aubergine fields. Potted eggplants were placed in screen cages where both <u>T. palmi</u> and <u>O. sauteri</u> had been released. When sprayed with fenthion, which control <u>O. sauteri</u> but not <u>T. palmi</u>, an increase of <u>T. palmi</u> populations was observed. Without treatment, <u>T. palmi</u> populations were kept at low levels. Similar experiments were carried out in the field and when treated, the peak density of <u>T. palmi</u> was four times larger than on the untreated plots where <u>O. sauteri</u> could effectively reduce thrips populations.

Source: Yano, E. (1996) Biocontrol of <u>Orius sauteri</u> (Poppius) and its potential as a biocontrol agent for <u>Thrips palmi</u> Karny.
 IOBC Bulletin, 19(1), 203-206.

Additional key words: biological control

Computer codes: THRIPL

#### <u>96/141</u> Damage of *Helicoverpa armigera* on grapevine in Hungary

In late August 1995, the vineyards of Szekszárd in the County of Tolna in Hungary were attacked by <u>Helicoverpa armigera</u> (EPPO A2 quarantine pest). Adults laid eggs onto the surface of grapevine berries (up to 100 eggs per cluster, and 1-12 eggs per berry). Young larvae make minute holes in the berries. More developed larvae gnawed deep holes in many berries which become soiled by excrement. Damage were more severe on white cultivars than on red cultivars. However, it must be stressed that grapevine is hardly a suitable host for <u>H. armigera</u>. When attacked grape clusters are taken into the laboratory, the egg mortality is 90% and very few can reach pupation.

 Source: Vörös, G. (1996) Damage of cotton bollworm (<u>Helicoverpa armigera</u> Hübner) in grapevine.
 Növényvédelem, 32(5), 229-234.

Additional key words: detailed record

Computer codes: HELIAR, HU

#### <u>96/142</u> Situation of *Phyllocnistis citrella* in the EPPO region

As already stated in EPPO RS 95/208, quarantine status was not considered appropriate for <u>Phyllocnistis citrella</u> due to its extremely rapid spread to all citrusgrowing countries in the EPPO region. In 1996-02-28/29, an EPPO/CIHEAM Workshop on <u>Phyllocnistis citrella</u> was held in Agadir (Morocco) to review the situation in Europe and Mediterranean Basin and in particular to discuss control methods. This Workshop made several recommendations concerning pest control and decided that another Workshop should be organized next year. The present distribution of the pest is now the following. It may be noted that the only citrus-growing area in the EPPO region which remains free is the Black Sea Coast (North-East Turkey, Georgia, Russia)

#### EPPO distribution list: *Phyllocnistis citrella*

**EPPO region**: Algeria (potential EPPO country), Cyprus, Egypt (potential EPPO country), France (including Corse), Greece (including Crete), Israel, Italy (including Sardegna and Sicilia), Malta, Morocco, Portugal (including Madeira but not the Azores), Spain (including Baleares), Syria (potential EPPO country), Tunisia, Turkey.

**Asia**: Afghanistan, Bangladesh, Cambodia, China, Cyprus, Hong Kong, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Korea Republic, Korea Democratic People's Republic, Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Saudi Arabia, Sri Lanka, Syria, Taiwan, Thailand, Turkey, Vietnam, Yemen.

**Africa**: Algeria, Côte d'Ivoire, Egypt, Ethiopia, Mauritius, Morocco, Nigeria, Réunion, South Africa, Sudan.

North America: Mexico, USA (Florida, Louisiana, Texas).

**Central America and Caribbean**: Bahamas, Belize, Cayman Islands, Cuba, Costa Rica, Honduras, Jamaica, Nicaragua, Panama, Puerto Rico.

**Oceania**: Australia (widespread in New South Wales and Queensland; Northern Territory), Guam, Northern Mariana Islands, Palau, Papua New Guinea, Solomon Islands, Samoa.

#### Source: Report of the ad hoc EPPO/CIHEAM Workshop on *Phyllocnistis citrella*. EPPO Technical Document, no.1023, 1996-04.

Additional key words: new records, detailed records

Computer codes: PHYNCI

#### 96/143 New EPPO summary of Phytosanitary Regulations of Turkey

A new EPPO summary of the Phytosanitary Regulations of Turkey is now ready and is being sent to all EPPO member countries. As all other EPPO summaries of phytosanitary regulations which have been released so far (EU Member States, Cyprus, Estonia, Israel, Latvia, Malta, Russia, Ukraine) and many other EPPO documents (see EPPO RS 96 /124 for full content), the text file (sue-tr.exe) is also available by e-mail through INTERNET at the following address: mail-server@eppo.fr.

To obtain it, send an e-mail message to mail-server@eppo.fr with the following content: BEGIN SEND sue-tr.exe END

Source: EPPO Secretariat, 1996-07.