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_____ *Invasive Plants*

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2007/086 *Dryocosmus kuriphilus* **found in the south of France (Alpes-Maritimes)**

The NPPO of France recently informed the EPPO Secretariat about the presence of *Dryocosmus kuriphilus* (Hymenoptera: Cynipidae – EPPO A2 List) on its territory. The pest had been detected on 2005-07-15, in three galls collected from a single chestnut tree (*Castanea sativa*) at Saint-Dalmas-Valdéblore (Alpes-Maritimes, Provence-Alpes-Côte d'Azur region). This tree came from a young plantation (established in autumn 2004) consisting of 18 trees which had originally been imported from the area of Cuneo in Italy (where the pest occurs). No galls were observed on these 18 trees or in their vicinity. As a precaution, all trees concerned were burned on the 2005-07-27. Because no further findings were made during intensive surveys, this first outbreak is now considered eradicated.

Within the framework of a surveillance programme for *D. kuriphilus* initiated since 2005 in the Roya valley close to the infested area in Italy, numerous galls were observed in 2007 on approximately 20 chestnut trees growing near a children's playground at Saint-Dalmas-de-Tende (Alpes-Maritimes). This village is located 15 km away from the Italian border and near the main road between Cuneo (IT) and Menton (FR). The identity of the pest, *D. kuriphilus,* was confirmed on 2007-04-26. Delimiting surveys were then conducted in nearby forests (covering an area of 12 x 10 km). *D. kuriphilus* was detected on 14 sites corresponding to 4 communes (Tende, La Brigue, Fontan and Saorge). The presence of exit holes on dried galls (made the year before) suggested that the pest was already present in this area since summer 2005. It is suspected that the pest was introduced by vehicles, as the main infested areas were found near a car park and a children's playground. Because *D. kuriphilus* has now been found in several forestry sites, including old trees, its eradication is not considered feasible. Phytosanitary measures were immediately implemented to limit pest populations and delay further spread. In accordance with EU emergency measures (Commission Decision 2006/464*), a focus zone of 5 km radius and a buffer zone of 10 km radius were delimited around each infested site. No nurseries or garden centres were located within these delimited areas. All movements of plants for planting of *C. sativa* are prohibited, within or from the delimited areas for a minimum period of 3 years. All chestnut growers or owners have been advised to prune and burn all infested twigs before mid-June (flight period of the insect). Finally, information leaflets are being distributed to chestnut growers or owners (forests, parks and gardens) in all other departments of the Provence-Alpes-Côte d'Azur region. Surveys will continue in 2008 in the Roya valley and research will be carried out on the possible use of a biocontrol agent (*Torymus sinensis*, Hymenoptera: Torymidae) and resistant chestnut cultivars (e.g. 'Bouche de Bétizac').

The situation of *Dryocosmus kuriphilus* in France can be described as follows: **Present, first found in 2005, few locations in the south of France (Alpes-Maritimes), under official control.**

* Commission Decision 2006/464/EC of 27 June 2006 on provisional emergency measures to prevent the introduction into and the spread within the Community of *Dryocosmus kuriphilus* Yasumatsu

Source: NPPO of France, 2007-06.

Additional key words: new record **Computer codes:** DRYCKU, FR

2007/087 First record of *Aculops fuchsiae* in Guernsey

The NPPO of Guernsey recently informed the EPPO Secretariat about the occurrence of *Aculops fuchsiae* (Acari: Eriophyidae - EPPO A1 List) on the island. *A. fuchsiae* was confirmed on fuchsia plants from a private garden in the early summer of 2006. Since then it has been found at over 20 private and public sites causing significant damage to a wide range of fuchsia varieties. The outbreaks in Guernsey are not linked and have probably originated from the migration of the mite on pollinating insects (bees and hoverflies) from Bretagne (France) where the pest was confirmed in 2003 (see EPPO RS 2004/001). Information about *A. fuchsiae* (symptoms and control methods) has been made available at all garden centres. The NPPO has also advised that fuchsia plants and cuttings should not be exchanged locally or taken out of the island. A survey will be carried out in summer 2007 to delimit the extent of the infestation and to give advice on control. However, it is envisaged that the pest will not be eradicated because of its wide distribution in private gardens and its natural transmission by pollinating insects.
The situation of *Aculops fuchsiae* in Guernsey can be described as follows: **Present, first found in 2006, widespread.**

Source: NPPO of Guernsey, 2007-04.

Additional key words: new record **Computer codes:** ACUPFU, GS

2007/088 Situation of *Diabrotica virgifera* in Poland in 2006

In Poland, *Diabrotica virgifera* (Coleoptera: Chrysomelidae – EPPO A2 List) was first caught in 2005 in the south-eastern part of the country (see EPPO RS 2005/083) at three locations: Dukla (1 specimen trapped near an international road leading to the Slovak border), Łąka and Jasionka (5 and 3 specimens trapped in maize fields near the airport in Rzeszów-Jasionka, respectively). In 2006, the monitoring programme continued. In total, 3,247 traps were placed at 1,526 locations. The first beetles were caught on 2006-07-24 in Pilszcz (voivoidship opolskie, near the Polish-Czech border). From July to the middle of October, a total of 17,171 beetles were caught on 428 traps (mostly pheromone traps), at 55 locations in 8 voivodships of the south and south-east parts of Poland. The results were as follows for each voivodship: podkarpackie (14,516 beetles), małopolskie (1,213), lubelskie (693), śląskie (313), świętokrzyskie (304), opolskie (128), dolnośląskie (3), mazowieckie (1). As a result of these findings, 88 focus and safety zones were demarcated and subjected to the following phytosanitary measures: prohibition to grow maize in monoculture, compulsory removal of volunteer maize plants, compulsory treatments against *D. virgifera*, prohibition to harvest before the end of the *D. virgifera* flying/activity period, prohibition to move soil and growing media from maize fields, compulsory cleaning of machinery. Monitoring activities will continue in 2007.
The situation of *Diabrotica virgifera* in Poland can be described as follows: **Present, found in 8 voivodships in the south and south-east, under official control.**

Source: NPPO of Poland, 2007-05.

Additional key words: detailed record **Computer codes:** DIABVI, PL

2007/089 Situation of *Rhynchophorus ferrugineus* in Turkey in 2006

The NPPO of Turkey recently informed the EPPO Secretariat about the situation of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae - EPPO A2 List) in 2006. In 2005, in the province of Antalya, imported palm trees were inspected and found infested by *R. ferrugineus* (see also EPPO RS 2007/001). These interceptions triggered surveys and pheromone traps were placed at several locations. In 2006, *R. ferrugineus* was captured in three provinces: Antalya, Mersin (both in Mediterranean region), Izmir (Aegean region).
The pest status of *Rhynchophorus ferrugineus* in Turkey is officially declared as follows: **Present, only in some areas, at low prevalence**.

Source: NPPO of Turkey, 2007-07.

Additional key words: detailed record **Computer codes:** RHYCFE, TR

2007/090 *Clavibacter michiganensis* subsp. *michiganensis* found in the Netherlands on tomato plants for planting

In February 2007, *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 List) was found on a tomato plant propagation company in the Netherlands. Only a very small number of tomato plants (including different cultivars) were affected at this propagation company. Affected plants had been grown from seeds originating from different countries (EU and non-EU countries). The possible source of this outbreak is still being investigated, but is most likely related to contaminated seeds. Forward-tracing investigations have revealed that a very small number of plants were infected at four companies producing tomato fruits for the final consumers, all located in the Netherlands. All plants concerned have been destroyed and prophylactic measures taken to prevent any further spread. Phytosanitary measures, including an intensified nation-wide specific surveillance of all propagation companies and further tracing to tomato-producing companies is being conducted to determine the possible occurrence of the pest, and ensure its eradication before the end of 2007.
The pest status of *Clavibacter michiganensis* subsp. *michiganensis* in the Netherlands is officially declared as follows: **Transient, under eradication.**

Source: NPPO of the Netherlands, 2007-05.

INTERNET (last retrieved on 2007-07).
Website of the Dutch Ministry of Agriculture, Nature and Food Quality. Pest report. *Clavibacter michiganensis spp. michiganensis* on tomato plants intended for planting.
http://www.minlnv.nl/portal/page?_pageid=116,1640321&_dad=portal&_schema=PORTAL&p_file_id=18144

Additional key words: detailed record **Computer codes:** CORBMI, NL

2007/091 Situation of *Ralstonia solanacearum* in Turkey in 2006

The NPPO of Turkey recently informed the EPPO Secretariat about the situation of *Ralstonia solanacearum* (EPPO A2 List) in 2006. In Turkey, potato brown rot was first detected in potato fields in the province of Nevşehir in 1995. Surveys were conducted and showed that 5 farms were found infected. Eradication measures were taken and the disease was no longer found. In 2006, the disease was detected again in one ware potato field near Altınova (province of Balıkesir, Marmara region). Delimiting surveys were conducted and showed that approximately 163 ha were infected at Altınova (see EPPO RS 2007/005). In summer 2006, severe wilt symptoms were observed on tomato fields at Barakova (province of Çanakkale, Aegean region). Laboratory tests confirmed the presence of *R. solanacearum*. Delimiting surveys showed that approximately 67 ha were infected. The bacterium was also detected in canal water used to irrigate the infected fields. Phytosanitary measures transposed from the EU Directive 98/57/EEC were applied. The main measures include a prohibition to produce solanaceous plants and other hosts on the infested areas, tracing and testing programmes to investigate the source of contamination and measures to prevent any further spread of the bacterium to new areas.
The situation of *Ralstonia solanacearum* in Turkey can be described as follows: **Present, first reported in 1995 in Central Anatolia but then no longer detected, two outbreaks found in 2006 in Marmara region (potato) and Aegean region (tomato), under official control**.

Source: NPPO of Turkey, 2007-07.

Additional key words: detailed record **Computer codes:** PSDMSO, TR

2007/092 First report of *Alternaria mali* in Iran

In Iran, the main apple-growing areas are located in the north of the provinces of East Azarbaijan and West Azarbaijan. During a survey on apple diseases done in 2006, foliar symptoms were observed in several parts of these provinces. Dark necrotic spots surrounded by chlorotic areas were observed on apple leaves. Spots reached 0.7 to 3 cm and appeared mainly on older leaves of the cultivars 'Red Delicious' and 'Golden Delicious'. Morphological characteristics and pathogenicity tests revealed the presence of *Alternaria mali* (EU Annexes). This is the first report of *A. mali* in Iran.
The situation of *Alternaria mali* in Iran can be described as follows: **Present, first found in 2006, in the north of the provinces of East Azarbaijan and West Azarbaijan.**

Source: Soleimani MJ, Esmailzadeh M (2007) First report of *Alternaria mali* causing apple leaf blotch disease in Iran. *Australasian Plant Disease Notes* **2**, 57-58 (available online: http://www.publish.csiro.au/journals/apdn/).

Additional key words: new record **Computer codes:** ALTEMA, IR

2007/093 Situation of *Synchytrium endobioticum* in Turkey in 2006

The NPPO of Turkey recently informed the EPPO Secretariat about the situation of potato wart disease caused by *Synchytrium endobioticum* (EPPO A2 List) in 2006. In Turkey, *S. endobioticum* was detected for the first time in October 2003 on potato tubers (*Solanum tuberosum*) grown in a garden in Aybastı (province of Ordu, Black Sea region), a non-economically important potato area (see EPPO RS 2005/034). Later in 2003, the disease was also found in ware potato crops, in two provinces of Central Anatolia (Niğde and Nevşehir) where potatoes are commercially grown. The potato cultivars 'Agria', 'Donella', 'Granola', 'Marfona' and 'Russet Burbank' were affected at a very low level (less than 1% of the total plants).
In 2006, *S. endobioticum* was found on ware potatoes in the following localities of Central Anatolia and Black Sea regions: 169 fields in Nevşehir, 68 fields in Niğde, 1 field in Kayseri (for Central Anatolia), and 8 fields in Ordu and 5 fields in Trabzon (for Black Sea region). Phytosanitary measures are being applied against the disease, in accordance with EU Council Directive 69/464/EC.
The situation of *Synchytrium endobioticum* in Turkey can be described as follows: **Present, first detected in 2003, found on ware potatoes in Black Sea (Ordu, Trabzon) and Central Anatolia (Nevşehir, Niğde, Kayseri) regions, under official control**.

Source: NPPO of Turkey, 2007-07.

EU (1969) Directive 69/464/EEC of 8 December 1969 on control of potato wart disease. *Official Journal of the European Communities* L 323, 1-2.

Additional key words: detailed record **Computer codes:** SYNCEN, TR

2007/094 Studies on the host range of *Sirococcus clavigignenti-juglandacearum*

In North America, butternut (*Juglans cinerea*) is severely affected by the fungus *Sirococcus clavigignenti-juglandacearum* (EPPO A1 List). So far *J. cinerea* is the only species where mortality has been reported, although natural infections have also been observed on hartnut (*J. ailantifolia* var.*cordiformis*). Studies were carried out in the USA to determine the susceptibility of *Juglans* species and hybrids, and of various other hardwood species to *S. clavigignenti-juglandacearum* to identify potential host plants in forests and nurseries. Artificial inoculations indicated that, although *S. clavigignenti-juglandacearum* was not causing lethal cankers, it could colonize and develop on *Carya cordiformis, C. illinoensis, C. ovata, Prunus serotina, Quercus alba, Q. macrocarpa, Q. rubra, Q. velutina, Castanea dentata, C. mollissima, Corylus americana* and *C. cornuta*. Several commercial cultivars of *Juglans regia* were found moderately to highly susceptible to *S. clavigignenti-juglandacearum*. Although *J. cinerea* is the only species killed by the fungus, this study suggests that other hardwood species, including *J. regia* (cultivated in the EPPO region), could be infected by the fungus. However, these artificial inoculation studies need to be confirmed by further field trials and observations.

Source: Ostry ME, Moore M (2007) Natural and experimental host range of *Sirococcus clavigignenti-juglandacearum*. *Plant Disease* **91**(5), 581-584.

Additional key words: host plants **Computer codes:** SIROCJ

2007/095 *Phytophthora ramorum* in Norway

In Norway, *Phytophthora ramorum* (EPPO Alert List) was isolated in November 2002 from *Rhododendron catawbiense* with wilting branches in a nursery in Bergen. After this first detection, an official survey was carried out in 2003 on various ornamental plants. Out of 21 samples collected from 10 locations, 2 samples were found infected by *P. ramorum*. These infected samples had been taken from imported rhododendron plants (see EPPO RS 2003/133). In 2004, 133 samples from 53 locations were tested and *P. ramorum* was found in 29 locations. It was detected in 57 samples of rhododendron, 1 of *Pieris japonica* and 1 of *Kalmia*. In 2005, at the beginning of the year, 142 samples were tested (including plants from 45 import shipments) and 19 were found positive (including 6 from 5 imported lots). In addition, 370 samples from 74 nurseries and garden centres were analysed and 97 samples from 43 locations were found positive (all corresponded to rhododendron plants). 10 of these 43 locations had already been found positive in 2004. In 2005, *P. ramorum* was also detected on well established *Viburnum fragans* and rhododendron shrubs in a private garden in Bergen, as well as on rhododendrons in 4 public gardens in Bergen and 2 in Stavanger. It is noted that the production of rhododendrons in Norwegian nurseries is limited and that most of the plants are imported (from March to May) from other European countries. It is therefore difficult to determine if these repeated findings are resulting from re-introductions or from eradication failures from one year to another.
The situation of *Phytophthora ramorum* in Norway can be described as follows: **Present, found in nurseries mainly on rhododendrons, isolated findings in gardens, under eradication.**

Source: Herrero ML, Toppe B, Klemsdal SS, Stensvand A (2006) First report of *Phytophthora ramorum* in ornamental plants in Norway. *Plant Disease* **90**(11), p 1458.

Additional key words: detailed record **Computer codes:** PHYTFR, NO

2007/096 *Phytophthora foliorum* a new species causing leaf blight of azalea

During surveys carried out for *Phytophthora ramorum* (EPPO Alert List) on nursery plants in California and Tennessee (US), a new species of *Phytophthora* was found on evergreen hybrid azaleas. This new species was described and called *Phytophthora foliorum sp. nov. P. foliorum* is morphologically distinct from *P. ramorum, P. lateralis* and *P. hibernalis*. However, it gave false-positive response when using the ITS-based diagnostic PCR primers designed to screen plant material for the presence of *P. ramorum*. So far, no significant azalea mortality attributed to *P. foliorum* has been observed, and this pathogen has only been found causing leaf spot symptoms on azalea. Further studies are needed to determine its origin, host range, potential impact, and potential establishment in natural ecosystems.

Source: Donahoo R, Blomquist CL, Thomas SL, Moulton JK, Cooke DEL, Lamour KH (2006) *Phytophthora foliorum* sp. nov., a new species causing leaf blight of azalea. *Mycological Research* **110**(11), 1309-1322.

Additional key words: new pest **Computer codes:** PHYTSP, US

2007/097 First report of *Chrysanthemum stem necrosis virus* in Japan

In Japan, chrysanthemum for cut flower production (*Dendranthema grandiflorum*) is the most important ornamental crop and is grown over more than 6,000 ha. In August 2006, necrotic streaks on stems, leaf distortions, chlorotic and necrotic spots and rings on leaves were observed on *D. grandiflorum* cvs 'Jimba' and 'Seinotama'. The disease was observed on the premises of 1 grower in Hiroshima Prefecture (Honshu) and its incidence reached 70% (approximately 30,000 plants covering 1,000 m² of glasshouses). *Frankliniella occidentalis* (Thysanoptera: Thripidae – EPPO A2 List) was the main thrips species found in association with diseased plants, followed by *F. intosa*. Laboratory assays (serology, PCR) and pathogenicity tests confirmed the presence of *Chrysanthemum stem necrosis virus* (*Tospovirus,* CSNV – EPPO A2 List) in symptomatic chrysanthemums. This is the first report of CSNV in Japan.
The situation of *Chrysanthemum stem necrosis virus* in Japan can be described as follows: **Present, first reported in 2007 in 1 production site in Hiroshima Prefecture (Honshu).**

Source: Matsuura S, Kubota K, Okuda M (2007) First report of *Chrysanthemum stem necrosis virus* on chrysanthemums in Japan. *Plant Disease* **91**(4), p 468.

Additional key words: new record **Computer codes:** CSNV00, JP

2007/098 EPPO report on notifications of non-compliance

The EPPO Secretariat has gathered the notifications of non-compliance for 2006 from Israel, and notifications for 2007 received via Europhyt (EU member countries) and from Algeria, Bulgaria, and Switzerland. 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 (*).

The EPPO Secretariat has selected notifications of non-compliance made because of the detection of 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.

2006 interceptions (Israel: May to December)

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Alternaria porri	*Scabiosa*	Seeds	Italy	Israel	1
Anthocoridae	*Cyperus* (dried cut stalks)	Stored products	Kenya	Israel	1
Anthocoridae, Cryptophagidae, *Cryptolestes, Monomorium*	Ferns (dried fronds)	Stored products	China	Israel	2
Anthriscus caucalis	*Festuca*	Seeds	USA	Israel	1
	Lolium	Seeds	USA	Israel	1
	Petroselinum	Seeds	Italy	Israel	2

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Aphelenchoides fragariae	*Zantedeschia*	Plants for planting (tubers)	Netherlands	Israel	1
Aphelenchoides ritzemabosi	*Oxalis*	Plants for planting (bulbs)	Netherlands	Israel	1
Carnation mottle virus	*Dianthus*	Cuttings	Italy	Israel	1
	Dianthus	Cuttings	Spain	Israel	1
Cirsium arvense	*Allium schoenoprasum*	Seeds	Czechia	Israel	1
	Allium schoenoprasum	Seeds	Netherlands	Israel	1
	Lepidium sativum	Seeds	United Kingdom	Israel	1
Cirsium vulgare	*Anethum graveolens*	Seeds	Italy	Israel	1
	Petroselinum crispum	Seeds	Italy	Israel	1
Claviceps purpurea	*Lolium*	Seeds	USA	Israel	1
	Secale cereale	Stored products	Germany	Israel	1
Cuscuta	*Medicago sativa*	Seeds	Italy	Israel	1
	Origanum majorana	Seeds	Netherlands	Israel	1
	Raphanus sativus	Seeds	Italy	Israel	1
Cuscuta, Fallopia convolvulus	*Beta vulgaris*	Seeds	Italy	Israel	1
Cyperus rotundus, Cuscuta	*Origanum majorana*	Seeds	European Union	Israel	1
Dichromothrips corbetti	*Dendrobium*	Tissue cultures	Thailand	Israel	1
Drechslera	*Lolium*	Seeds	USA	Israel	1
Drechslera dematioidea	*Lolium*	Seeds	USA	Israel	1
Dysmicoccus brevipes	*Ananas comosus*	Fruits	Kenya	Israel	1
Enicmus rugosus	*Triticum aestivum*	Stored products	Russia	Israel	1
Erwinia chrysanthemi, *E. carotovora, E. herbicola, Aspergillus niger, Pantoea ananas, Scytalidium lignicola, Thielaviopsis basicola*	*Dracaena sanderiana*	Plants for planting	Taiwan	Israel	4
Fallopia convolvulus	*Beta vulgaris*	Seeds	Italy	Israel	1
	Beta vulgaris	Seeds	Netherlands	Israel	2
	Cichorium	Seeds	Italy	Israel	1
	Coriandrum sativum	Seeds	Germany	Israel	1
	Coriandrum sativum	Seeds	United Kingdom	Israel	1
	Raphanus sativus	Seeds	Germany	Israel	1
	Raphanus sativus	Seeds	Italy	Israel	1
	Raphanus sativus	Seeds	United Kingdom	Israel	1
	Sanguisorba minor	Seeds	European Union	Israel	1
	Spinacia oleracea	Seeds	European Union	Israel	1
	Spinacia oleracea	Seeds	USA	Israel	2

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Fusarium oxysporum	*Lycopersicon esculentum*	Seeds	Netherlands	Israel	1
Galium mollugo, Rumex acetosella	*Thymus vulgaris*	Seeds	Germany	Israel	1
Gloeotinia	*Lolium*	Seeds	USA	Israel	1
Heterococcus	*Bambusa*	Plants for planting	France	Israel	1
Heterodera	*Gloxinia*	Plants for planting (tubers)	Netherlands	Israel	1
Hirschmanniella oryzae	*Cryptocoryne*	Aquatic plants	Netherlands	Israel	1
Illinoia lambersi	*Rhododendron (Azalea)*	Plants for planting	United Kingdom	Israel	1
Lamellaxis clavulinus, Succinea putris	*Hydrangea*	Pot plants	Netherlands	Israel	1
Meloidogyne hapla	*Astrantia*	Plants for planting (rhizomes)	Netherlands	Israel	1
Odontothrips meliloti	*Cydonia*	Fruits	Turkey	Israel	1
Parthenothrips dracaenae	*Anthurium*	Cut flowers	Netherlands	Israel	1
Phacidiopycnis pyri	*Pyrus*	Fruits	USA	Israel	5
Phoma, Alternaria, bacteria	*Capsicum annuum*	Seeds	Netherlands	Israel	1
Planococcus citri	Cactaceae	Plants for planting	Netherlands	Israel	1
Polygonum persicaria	*Daucus carota*	Seeds	France	Israel	1
	Daucus carota	Seeds	Netherlands	Israel	2
	Petroselinum	Seeds	Italy	Israel	3
	Trifolium	Seeds	Italy	Israel	1
Pseudococcus maritimus	*Malus*	Fruits	USA	Israel	1
Pseudomonas syringae pv. *pisi*	*Pisum sativum*	Seeds	Hungary	Israel	1
	Pisum sativum	Seeds	New Zealand	Israel	1
Quadraspidiotus perniciosus	*Cydonia*	Fruits	Turkey	Israel	2
	Malus	Fruits	Italy	Israel	2
Rumex obtusifolius	*Coriandrum sativum*	Seeds	USA	Israel	2
Sclerotinia minor	*Nasturtium*	Seeds	Netherlands	Israel	1
Sclerotinia sclerotiorum	*Anemone*	Seeds	Netherlands	Israel	1
	Anthriscus	Seeds	Italy	Israel	1
	Brassica oleracea var. capitata	Seeds	Netherlands	Israel	1
Sclerotinia sclerotiorum	*Brassica rapa*	Seeds	USA	Israel	1
	Calendula officinalis	Seeds	Netherlands	Israel	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
S. sclerotiorum (cont.)	*Petroselinum*	Seeds	Germany	Israel	1
	Raphanus sativus	Seeds	USA	Israel	2
Sclerotinia sclerotiorum, Matricaria inodora	*Petroselinum*	Seeds	Denmark	Israel	2
Sida spinosa	*Lycopersicon esculentum*	Seeds	Netherlands	Israel	1
Thripidae	*Nemesia*	Cuttings	Germany	Israel	1
Unspecified weed seeds	*Cocos nucifera (*fibers)	Growing media	India	Israel	3
	Cocos nucifera (fibers)	Growing media	Sri Lanka	Israel	6
Xanthomonas campestris	*Brassica oleracea var. botrytis*	Seeds	France	Israel	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Anthocoridae, Anthribidae, Crematogaster, Cryptamorpha, Cryptolestes, Cryptophagidae, Cryptophagus, Cucujidae, Curculionidae, Enicmus, Formicidae, Holoparamecus, Lasioderma, Paramecosoma	*Bambusa* (canes)	Wood	China	Israel	8
Camponotus fallax, Dolichoderus quadricpunctatus, Ips laricis, Globicornis, Lasius brunneus, Leiopus, Melandria, Orthotomicus erosus, Pityogenes calcaratus, Tomicus minor, Uleiota planata	Unspecified	Wood and bark	Ukraine	Israel	8
Cecidomyiidae, Lonchaeidae, Phoridae, Porricondylinae, Scatopsidae	Unspecified	Dunnage	France	Israel	1
Chymomyza	Pinaceae	Dunnage	Unknown	Israel	1
Crypturgus, Ips proximus, Orthotomicus erosus, Ips vorontzowi, Orthotomicus, Xyloterus lineatus	Unspecified	Wood and bark	Russia	Israel	5
Dinoderus	Unspecified	Wood and bark	Germany	Israel	1
Dryocoetes autographus, D. baicalicus, Hylurgops palliatus, Ips typographus, Lymantor coryli, Myrmica, Pityogenes chalcographus, Scolytidae, Silvanus, Thamnurgus characiae, Quedius, Xantholinus	Unspecified	Wood and bark	Romania	Israel	2
Hylastes ater, Orthotomicus, Orthopterus	Unspecified	Wood and bark	Estonia, Ukraine	Israel	2
Ips acuminatus	Pinaceae	Dunnage	Russia	Israel	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Ips sexdentatus, Ips, Pityogenes calcaratus, Pityogenes, Rhagium inquisitor, Scolytidae, Tetropium castaneum	Unspecified	Dunnage	Unknown	Israel	6
Isoptera	Used railroad ties	Wood	United States	Israel	1
Lasius niger	Used railroad ties	Wood	Latvia	Israel	1
	Used railroad ties	Wood	Ukraine	Israel	1
Lyctocoris campestris	*Styrax*	Wood and bark	Ukraine	Israel	1
Potosia	*Bambusa* (canes)	Wood	Indonesia	Israel	1
Unspecified weed seedlings	Used railroad ties	Wood	Netherlands	Israel	1
	Used railroad ties	Wood	Romania	Israel	1

2007 interceptions

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Acari	*Dianthus*	Cut flowers	Ecuador	Spain	1
Bemisia afer	*Trachelium*	Cut flowers	Israel	Netherlands	1
Bemisia tabaci	*Aster*	Cut flowers	Israel	Netherlands	2
	Aster, Solidago	Cut flowers	Israel	Netherlands	1
	Chrysanthemum	Cut flowers	Spain (Canary isl.)	United Kingdom	1
	Colocasia	Vegetables	India	United Kingdom	4
	Colocasia esculenta	Vegetables	India	United Kingdom	1
	Colocasia esculenta, *Momordica charantia, Solanum melongena*	Vegetables	India	United Kingdom	1
	Colocasia esculenta, *Solanum melongena, Momordica, Mangifera indica, Citrus aurantiifolia*	Vegetables	India	United Kingdom	1
	Colocasia, Citrus	Vegetables	India	United Kingdom	1
	Corchorus	Vegetables (leaves)	Sierra Leone	United Kingdom	1
	Crossandra	Cut flowers	Brazil	Netherlands	1
	Dahlia	Cuttings	Kenya	United Kingdom	1
	Duranta	Cuttings	Israel	United Kingdom	1
	Eryngium	Cuttings	Thailand	United Kingdom	1
	Eryngium foetidum	Vegetables (leaves)	Thailand	Ireland	1
	Euphorbia pulcherrima	Plants for planting	Netherlands	United Kingdom	1
	Eustoma grandiflorum	Cut flowers	Israel	Netherlands	1
	Hibiscus moscheutos	Cuttings	USA	United Kingdom	1
	Hibiscus rosa-sinensis	Plants for planting	Israel	Sweden	1
	Lantana	Plants for planting	Israel	Netherlands	2
	Lippia citrodora	Cuttings	Israel	United Kingdom	1
	Nomaphila	Aquarium plants	Thailand	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Israel	France	1
	Ocimum canum	Vegetables (leaves)	Thailand	United Kingdom	1
	Piper sarmentosum	Vegetables	Thailand	Ireland	3

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
B. tabaci (cont.)	*Psidium guajava*	Fruits	India	United Kingdom	3
	Rosa	Cut flowers	Israel	Netherlands	1
	Rosa	Cut flowers	Zimbabwe	Netherlands	1
	Salvia officinalis	Plants for planting	Germany	Finland	2
	Solidago	Cut flowers	Israel	Netherlands	2
	Solidago	Cut flowers	Zimbabwe	Netherlands	2
	Spiraea	Cuttings	Costa Rica	Netherlands	1
	Trachelium	Cut flowers	Israel	Netherlands	3
	Unspecified	Herbs	Thailand	United Kingdom	1
Bemisia tabaci, Liriomyza, Thripidae, Helicoverpa armigera	*Ocimum basilicum*	Vegetables (leaves)	Thailand	United Kingdom	1
Bemisia tabaci, Thripidae	*Colocasia esculenta, Momordica charantia*	Vegetables	India	United Kingdom	1
	Corchorus olitorius, Solanum gilo	Vegetables	Ghana	United Kingdom	1
Clavibacter michiganensis subsp. *michiganensis*	*Lycopersicon esculentum*	Plants for planting	Netherlands	Austria	1
	Lycopersicon esculentum	Seeds	China	Slovenia	1
Clavibacter michiganensis subsp. *sepedonicus*	*Solanum tuberosum*	Ware potatoes	Estonia	Lithuania	1
	Solanum tuberosum	Ware potatoes	Germany	Lithuania	1
Cnidocampa flavescens	*Acer palmatum*	Plants for planting	China	United Kingdom	1
Cydia molesta	*Prunus persica*	Fruits	Argentina	Spain	1
Dialeuropora decempuncta	*Piper betle, Citrus hystrix*	Vegetables (leaves)	Thailand	United Kingdom	1
Diaphania	*Momordica charantia*	Vegetables	Dominican Rep.	United Kingdom	1
Diaphania indica	*Momordica*	Vegetables	India	Germany	1
	Momordica	Vegetables	India	United Kingdom	1
	Momordica charantia	Vegetables	Kenya	United Kingdom	2
Drepanococcus chiton	*Psidium guajava*	Fruits	Pakistan	United Kingdom	1
Frankliniella schultzei	*Momordica balsamina*	Vegetables	Dominican Rep.	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Netherlands	1
Globodera pallida	*Solanum tuberosum*	Ware potatoes	Germany	Lithuania	2
Guignardia	*Citrus maxima*	Fruits	China	Netherlands	3
Guignardia citricarpa	*Citrus*	Fruits	Bangladesh	United Kingdom	2
	Citrus	Fruits	China	Netherlands	4
	Citrus maxima	Fruits	China	Netherlands	10
	Citrus sinensis	Fruits	Argentina	United Kingdom	1
	Citrus sinensis	Fruits	Brazil	Belgium	17
	Citrus sinensis	Fruits	Brazil	Netherlands	15
	Citrus sinensis	Fruits	Brazil	Spain	1
	Citrus sinensis	Fruits	Cuba	Netherlands	1
	Citrus sinensis	Fruits	South Africa	Netherlands	3

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Helicotylenchus dihystera	*Anthurium, Philodendron mamei, Alocasia,Tacca integrifolia*	Plants for planting	USA	United Kingdom	1
Helicoverpa armigera	*Capsicum annuum*	Vegetables	Senegal	Spain	1
	Capsicum frutescens	Vegetables	Ghana	United Kingdom	1
	Chrysanthemum	Cuttings	Kenya	United Kingdom	1
	Chrysanthemum	Plants for planting	Kenya	United Kingdom	1
	Dianthus	Cut flowers	Israel	Netherlands	2
	Dianthus	Cut flowers	Kenya	Netherlands	7
	Eryngium	Cut flowers	Kenya	Netherlands	2
	Eryngium	Cut flowers	Zimbabwe	Netherlands	7
	Eustoma	Cut flowers	Israel	Netherlands	2
	Eustoma grandiflorum	Cut flowers	Kenya	Netherlands	2
	Gypsophila paniculata	Cut flowers	Kenya	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Netherlands	5
	Phaseolus	Vegetables	India	Netherlands	1
	Pisum	Vegetables	Kenya	Ireland	1
	Pisum	Vegetables	Kenya	Netherlands	2
	Pisum sativum	Vegetables	China	Netherlands	1
	Rosa	Cut flowers	Ethiopia	Netherlands	16
	Rosa	Cut flowers	India	Netherlands	6
	Rosa	Cut flowers	Kenya	Netherlands	37
	Rosa	Cut flowers	South Africa	Netherlands	1
	Rosa	Cut flowers	Tanzania	Netherlands	7
	Rosa	Cut flowers	Uganda	Netherlands	2
	Rosa	Cut flowers	Zambia	Netherlands	1
	Rosa	Cut flowers	Zimbabwe	Netherlands	1
	Rosa, Gypsophila	Cut flowers	Kenya	Netherlands	1
	Solidago	Cut flowers	Zimbabwe	Netherlands	2
Helicoverpa armigera, Liriomyza	*Pisum sativum*	Vegetables	Kenya	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	Israel	United Kingdom	1
Hirschmanniella	*Vallisneria*	Aquarium plants	Singapore	Poland	2
Lepidoptera	*Gleditsia triacanthos*	Plants for planting	Israel	United Kingdom	1
Leptinotarsa decemlineata	*Lactuca sativa*	Vegetables	France	United Kingdom	2
Leucinodes orbonalis	*Solanum melongena*	Vegetables	Thailand	Czechia	1
	Solanum melongena	Vegetables	Thailand	Germany	2
	Solanum melongena, Mangifera indica, Psidium guajava	Vegetables	India	United Kingdom	1
Leucinodes orbonalis, Thripidae	*Solanum melongena*	Vegetables	Ghana	United Kingdom	1
Liriomyza	*Apium graveolens, Ocimum*	Vegetables	Thailand	Sweden	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Czechia	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Sweden	2
Liriomyza huidobrensis	*Eryngium*	Cut flowers	Ecuador	Netherlands	1
	Eryngium	Vegetables	Kenya*	Netherlands	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
L. huidobrensis (cont.)	*Eustoma grandiflorum*	Cut flowers	Kenya*	Netherlands	2
	Gypsophila	Cut flowers	Ecuador	Netherlands	1
	Gypsophila paniculata	Cut flowers	Kenya*	Netherlands	2
	Pisum sativum	Vegetables	Kenya*	Ireland	2
	Ranunculus	Cut flowers	Israel	United Kingdom	1
Liriomyza sativae	*Ocimum*	Vegetables (leaves)	Thailand	Netherlands	2
	Ocimum basilicum	Vegetables (leaves)	Thailand	Netherlands	2
	Ocimum basilicum	Vegetables (leaves)	Thailand	Sweden	1
Liriomyza sativae, Helicoverpa armigera	*Ocimum basilicum, Solanum melongena*	Vegetables (leaves)	Thailand	Czechia	1
Liriomyza trifolii	*Gypsophila*	Cut flowers	Ethiopia	Netherlands	2
	Gypsophila	Cut flowers	Israel	Netherlands	2
	Ocimum basilicum	Vegetables (leaves)	Israel	Czechia	2
	Ocimum basilicum	Plants for planting	Israel	Netherlands	1
	Solidago	Cut flowers	Israel	Netherlands	1
Opogona sacchari	*Dracaena*	Plants for planting	Croatia*	Slovenia	1
	Sansevieria	Plants for planting	Netherlands	Germany	1
Parlatoria ziziphi, Parlatoria	*Citrus hystrix*	Leaves	Thailand	United Kingdom	1
Pepino mosaic virus	*Lycopersicon esculentum*	Seeds	Chile	United Kingdom	1
	Lycopersicon esculentum	Vegetables	Morocco*	United Kingdom	1
	Lycopersicon esculentum	Plants for planting	Netherlands	United Kingdom	1
	Lycopersicon esculentum	Seeds	Netherlands	United Kingdom	2
	Lycopersicon esculentum	Vegetables	Netherlands	United Kingdom	1
	Lycopersicon esculentum	Vegetables	Spain	United Kingdom	3
	Lycopersicon esculentum	Vegetables	Spain (Canary isl.)	United Kingdom	6
Phytophthora ramorum	*Rhododendron*	Plants for planting	France	United Kingdom	2
	Rhododendron impeditum	Plants for planting	France	United Kingdom	1
	Viburnum tinus	Plants for planting	Netherlands	United Kingdom	1
Plum pox virus	*Prunus armeniaca, Prunus persica*	Plants for planting	Serbia	Hungary	1
	Prunus persica	Plants for planting	Croatia	Slovenia	1
	Prunus persica, Prunus domestica	Plants for planting	Serbia	Bulgaria	1
Potato spindle tuber viroid	*Brugmansia*	Plants for planting	Netherlands	United Kingdom	1
	Solanum jasminoides	Plants for planting	Belgium	United Kingdom	1
Radopholus similis	*Anubias*	Aquarium plants	Thailand	Netherlands	1
Ralstonia solanacearum	*Solanum tuberosum*	Ware potatoes	Egypt	Slovenia	2
	Solanum tuberosum	Ware potatoes	France	Ireland	2
	Solanum tuberosum	Ware potatoes	France	United Kingdom	1
Scirtothrips dorsalis	*Momordica*	Vegetables	Kenya*	United Kingdom	1
	Momordica charantia	Vegetables	India	United Kingdom	2
	Momordica charantia	Vegetables	Suriname	Netherlands	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Sphaceloma	*Euonymus*	Plants for planting	Brazil	United Kingdom	1
Spodoptera	*Ocimum*	Vegetables (leaves)	Thailand	Sweden	1
Spodoptera littoralis	*Eustoma*	Cut flowers	Israel	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Spain (Canary isl.)	United Kingdom	1
	Rosa	Cut flowers	Ethiopia	Netherlands	1
	Rosa	Cut flowers	India	Netherlands	1
	Rosa	Cut flowers	Israel	Belgium	1
	Rosa	Cut flowers	Israel	Netherlands	1
	Rosa	Cut flowers	Kenya	Netherlands	1
	Rosa	Cut flowers	Tanzania	Netherlands	1
	Rosa	Cut flowers	Zimbabwe	Netherlands	12
Spodoptera litura	*Apium*	Vegetables	Thailand	Netherlands	1
	Asparagus officinalis	Vegetables	Thailand	Netherlands	1
Spodoptera litura, Leucinodes orbonalis	*Solanum melongena, Asparagus*	Vegetables	Thailand	Netherlands	1
Spodoptera, Heliothis, Formicidae	*Capsicum, Cucurbita, Luffa, Solanum melongena*	Vegetables	Ghana	Germany	1
Thripidae	*Citrus aurantiifolia, Solanum melongena, Momordica charantia*	Fruits	India	United Kingdom	1
	Citrus hystrix, Momordica charantia, Solanum melongena	Leaves	India	United Kingdom	1
	Mangifera indica, Solanum melongena, Momordica, Citrus,	Fruits	India	United Kingdom	1
	Citrus, Solanum melongena	Fruits	Pakistan	United Kingdom	1
	Momordica	Vegetables	India	United Kingdom	2
	Momordica charantia	Vegetables	Dominican Rep.	United Kingdom	1
	Momordica charantia	Vegetables	India	United Kingdom	1
	Momordica charantia	Vegetables	Thailand	United Kingdom	2
	Momordica charantia, Solanum melongena	Vegetables	Kenya	United Kingdom	1
	Solanum gilo	Vegetables	Ghana	United Kingdom	3
	Solanum melongena	Vegetables	Bangladesh	United Kingdom	1
	Solanum melongena	Vegetables	Ghana	United Kingdom	10
Thripidae, Diaphania indica	*Momordica charantia*	Vegetables	India	United Kingdom	1
Thrips	*Momordica*	Vegetables	India	Germany	1
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	Belgium	1
	Dendrobium	Cut flowers	Thailand	Finland	4
	Dendrobium	Cut flowers	Thailand	Netherlands	5
	Momordica	Vegetables	Dominican Rep.	Netherlands	1
	Momordica	Vegetables	Dominican Rep.	United Kingdom	2
	Momordica charantia	Vegetables	Dominican Rep.	United Kingdom	1
	Momordica charantia	Vegetables	India	United Kingdom	3
	Momordica charantia	Vegetables	Suriname	Netherlands	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
T. palmi (cont.)	*Momordica charantia*	Vegetables	Thailand	Netherlands	2
	Momordica charantia	Vegetables	Thailand	United Kingdom	1
	Momordica charantia, Solanum melongena	Vegetables	Dominican Rep.	United Kingdom	1
	Momordica charantia, Solanum melongena, Citrus	Vegetables	India	United Kingdom	1
	Ocimum	Vegetables (leaves)	Thailand	Netherlands	1
	Orchidaceae	Cut flowers	Malaysia	Austria	1
	Orchidaceae	Cut flowers	Singapore	Austria	1
	Orchidaceae	Cut flowers	Thailand	Austria	8
	Rosa	Cut flowers	Thailand	Netherlands	1
	Solanaceae	Vegetables	Thailand	Netherlands	1
	Solanum	Vegetables	Suriname	Netherlands	1
	Solanum melongena	Vegetables	Dominican Rep.	Netherlands	2
	Solanum melongena	Vegetables	Ghana	United Kingdom	1
	Solanum melongena	Vegetables	Suriname	Netherlands	5
Thrips palmi (suspect), Diaphania indica	*Momordica charantia*	Vegetables	India	United Kingdom	1
Thrips palmi, Bactrocera cucurbitae, Scirtothrips	*Momordica charantia*	Vegetables	India	United Kingdom	1
Thrips palmi, Diaphania indica	*Momordica charantia*	Vegetables	India	United Kingdom	2
Thrips tabaci	*Dianthus*	Cut flowers	Israel	Bulgaria	1
	Dianthus caryophyllus	Cut flowers	Turkey	United Kingdom	1
Thysanoptera	*Dianthus caryophyllus*	Cut flowers	Colombia	Germany	1
	Eustoma	Cut flowers	Israel	Belgium	1
	Solanum melongena	Vegetables	Ghana	United Kingdom	4
Tomato spotted wilt virus, Frankliniella occidentalis	*Primula vulgaris*	Cuttings	(Denmark)	Finland	1
Xanthomonas	*Citrus*	Fruits	Bangladesh	United Kingdom	1
	Citrus aurantiifolia	Fruits	Bangladesh	United Kingdom	1
Xanthomonas axonopodis pv. *citri*	*Citrus*	Fruits	Bangladesh	United Kingdom	1
	Citrus aurantiifolia	Fruits	Bangladesh	United Kingdom	3
	Citrus aurantiifolia	Fruits	India	United Kingdom	2
	Citrus limon	Fruits	Bangladesh	United Kingdom	1
	Citrus limon	Fruits	India	United Kingdom	1
Xanthomonas axonopodis pv. *poinsettiicola*	*Euphorbia pulcherrima*	Plants for planting	Netherlands*	United Kingdom	1

- **Fruit flies**

Pest	Consignment	Country of origin	Destination	nb
Anastrepha obliqua	*Mangifera indica*	Dominican Rep.	United Kingdom	1
Bactrocera	*Averrhoa carambola*	Malaysia	Netherlands	1
Bactrocera cucurbitae	*Citrullus lanatus*	Ghana	United Kingdom	1
	Momordica charantia	Thailand	United Kingdom	1
Bactrocera zonata	*Psidium guajava*	Pakistan	United Kingdom	1
Non-European Tephritidae	*Capsicum annuum*	Thailand	Ireland	1
	Capsicum annuum, Ocimum basilicum	Thailand	Ireland	1
	Dendrobium	Thailand	Ireland	1
	Mangifera indica	Dominican Rep.	Netherlands	1
	Mangifera indica	Dominican Rep.	United Kingdom	1
	Momordica	Thailand	Germany	1
	Psidium guajava	Pakistan	United Kingdom	2

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Bostrichidae	Unspecified	Wood and bark	India	Germany	1
Cerambycidae	Unspecified	Wood and bark	Cameroon	Spain	1
	Unspecified	Packing wood	China	Germany	1
Grub holes > 3 mm	*Larix*	Wood and bark	Russia	Finland	11
	Unspecified	Dunnage	Russia	Finland	1
Nematoda	*Coniferae*	Dunnage	USA	Denmark	1
	Unspecified	Packing wood	Canada	Denmark	2
	Unspecified	Packing wood	China	Finland	1
Scolytidae	*Populus*	Wood and bark	Russia	Cyprus	1
Sinoxylon	Unspecified	Packing wood	Australia	Poland	1
Sinoxylon anale	Unspecified	Packing wood	India	Germany	1

- **Bonsais**

Pest	Consignment	Country of origin	Destination	nb
Criconemoides, Trichodorus, Longidoridae	*Camellia sasanqua*	Japan	Belgium	1
Helicotylenchus	*Acer palmatum*	Japan	Belgium	1
Heteroderidae	*Pinus pentaphylla*	Japan	Germany	1
Pratylenchus	*Acer palmatum*	Japan	Belgium	2
	Juniperus chinensis	Japan	Germany	1
	Juniperus chinensis	Japan	Belgium	1
Pratylenchus loosi, Phytonemus pallidus subsp. pallidus, Agistemus	*Ilex crenata*	Japan	United Kingdom	1
Pratylenchus, Criconemoides	*Camellia sasanqua*	Japan	Belgium	1
Pratylenchus, Helicotylenchus	*Juniperus chinensis*	Japan	Germany	1
Pratylenchus, Longidoridae	*Acer palmatum*	Japan	Belgium	1
Rhizoecus hibisci	*Serissa*	China	Netherlands	1
	Zelkova	China	Netherlands	1
Tylenchorhynchus	*Rhododendron indicum*	Japan	Germany	1
Xiphinema americanum	*Acer, Enkianthus, Ilex crenata, Taxus*	Japan	Netherlands	1
Xiphinema incognitum, Paratrichodrus	*Ilex crenata*	Japan	United Kingdom	1
Xiphinema, Trichodorus, Criconemoides, Heterodera	*Pinus pentaphylla*	Japan	Belgium	1
Xiphinema, Tylenchorhynchus, Pratylenchus, Trichodorus, Criconemoides, Longidoridae	*Ilex crenata*	Japan	Belgium	1

Source: EPPO Secretariat, 2007-07.

2007/099 *Brunnera macrophylla,* an alien plant new in Italian flora

Brunnera macrophylla (Borraginaceae) is a perennial plant originating from the Caucasus and resembling *Mysosotis.* It grows in shaded and humid places with cool, deep and subacid soils. The species is recorded in the Czech Republic and the United Kingdom (Flora Europaea). In spring 2005, it was found on a humid roadside in the national park of Toscana, more precisely in Badia Prataglia (Provincia di Arezzo), at an altitude of 830 m. It was found in five stations around houses, along roadsides and on disturbed land, but it was not observed colonizing uncultivated habitats.
It is supposed that *B. macrophylla* has been voluntarily introduced in Toscana for ornamental purposes around the 1950s. It reproduces by rhizomes which are also spread by wild boars.
According to the Global Compendium of Weeds, the species is only recorded as "naturalized" and "casual alien" where it has been introduced and no invasive behaviour has been recorded. Considering that the species is currently spreading, it will be monitored within the national park in order to prevent invasions of unmanaged habitats.

Source: Frignani F, Landi M, Zoccola A, Selvi F (2006) [On the presence of *Brunnera macrophylla* (Boraginaceae) in Tuscany, an alien species new for the Italian flora]. (in Italian) *Informatore botanico italiano* **38**, 563-567

A Global Compendium of Weeds. http://www.hear.org/gcw/alpha_select_gcw.htm

Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters SM and Webb DA (1964/80) *Flora Europaea*, Vol 1-5. Cambridge University Press, Cambridge.

Additional key words: alien plant, new record **Computer codes:** BRRMA, IT

2007/100 Bioenergy and invasive plants in Italy

The increasing energy consumption of industrialized countries, economic and political instabilities affecting global energy supply and pollution from the use of non renewable fuels have led to the development of renewable energies consisting of the cultivation of agro-forest species for energy production. Many of the characteristics of these bioenergy plants coincide with those of invasive plants: efficient reproduction, short regeneration period, high spread potential, persistence of seeds, etc. Great care should therefore be taken when choosing alien species to be cultivated for bioenergy.
Miscanthus sinensis (Poaceae) and the hybrid *Miscanthus x giganteus* (Poaceae) are proposed for growing as bioenergy plants in Italy. The former is considered invasive in many countries while the latter is an allopolyploid species reproducing very efficiently vegetatively and suspected to have the potential to become invasive. Other species such as *Panicum virgatum* (Poaceae), *Crambe abyssinica* (Brassicaceae), *Kochia scoparia* (Brassicaceae) are also proposed as bioenergy plants although they are suspected to have the potential to be invasive.
Concerning tree and shrub species proposed as bioenergy plants, *Robinia pseudacacia* (Fabaceae) is well known as an invasive plant and the use of *Acacia* spp., such as *Acacia saligna* (Fabaceae), could represent an invasion risk.
In order to reduce the possible expansion into natural ecosystems of alien species planted over large areas for bioenergy production, Pest Risk Analyses on species proposed for plantation were considered necessary. The Italian Agency for the protection of the environment and for technical services (Environment Protection Department) is currently

performing Pest Risk Analyses on the basis of the Australian Weed Risk Assessment (Pheloung *et al.*, 1999) for some alien species present in the Lazio region and preliminary results are presented below:

Species	Weed Risk Assessment score	Known invasiveness	Species used for bioenergy
Aesculus hippocastanum (Hippocastanaceae)	-3: Accept	No	No
Ailanthus altissima (Simaroubaceae)	16: Reject	Yes	Yes
Carpobrotus edulis (Aizoaceae)	11: Reject	Yes, locally	No
Robinia pseudacacia (Fabaceae)	15: Reject	Yes	Yes
Sorghum halepense (Poaceae)	19: Reject	Yes	*S. bicolor*
Yucca gloriosa (Agavaceae)	-1: Accept	No	No
Zea mays (Poaceae)	3: Accept	No	No
Helianthus tuberosus (Asteraceae)	12: Reject	Yes	Yes

Source: Crosti R, Forconi V (2007) [Expansion of biomass cultures on the Italian territory: unknown factors related to the introduction of alien species potentially invasive. In Proceedings of the Conference on Cultivations for bioenergy production and environment: Sustainability, diversity and conservation of the territory". Agency for the protection of environment and for technical services]. (in Italian) Roma. 117 pp. http://www.apat.gov.it/site/_contentfiles/00145000/145067_Atti_del_convegno_Colture_a_scopo_energetico_e_ambiente.pdf

Pheloung PC, Williams PA, Halloy SR (1999) A weed risk assessment model for use as a biosecurity tool evaluating plant introductions. *Journal of Environmental Management* **57,** 239–251.

Additional key words: invasive alien plants, bioenergy

Computer codes: AECHI, AILAL, CBSED, CRMAB, HELTU, KCHSC, MISSI, PANVI, ROBPS, SORHA, UCCGL, ZEAMX

2007/101 A new ordinance prohibiting trade, use and introduction in the natural environment of *Ludwigia grandiflora* and *Ludwigia peploides* in France

Following the decree relative to non-domesticated animal species and non-cultivated plant species modifying the French environment code published on 5 January 2007 (see EPPO RS 2007/018), an ordinance prohibiting trade, use and introduction in the natural environment of *Ludwigia grandiflora* and *Ludwigia peploides* (Onagraceae) was published on 2 May 2007.

Source: Arrêté du 2 mai 2007 interdisant la commercialisation, l'utilisation et l'introduction dans le milieu naturel de *Ludwigia grandiflora* et *Ludwigia peploides*. http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=DEVN0753883A

Additional key words: invasive alien plants, legislation

Computer codes: LUDPE, LUDUR, FR

2007/102 *Ludwigia peploides* and *Eichhornia crassipes* found in Corsica (FR)

On 2007-06-19, the 'Conservatoire Botanique' of Corsica (FR) recorded two new invasive plant species on its territory. Both *Ludwigia peploides* (Onograceae) and *Eichhornia crassipes* (Pontederiaceae) were found at the purifying water station near the Figari airport. Both aquatic plants were found in 1.5 m deep decantation basins covering 1500 m^2. They are in activity throughout the year so the plants may not desiccate. Cattle also drink from these basins and eat both plant species, possibly facilitating their spread.
Ludwigia peploides has also been observed downstream up to 100 m along a water course where cattle drink. The plants have settled in the meadow following cattle movements and, according to the cattle breeder, they have probably been present on this site for three years. *Ludwigia peploides* reproduces very efficiently vegetatively but many seedlings have also been observed, thus indicating that sexual reproduction was also taking place. The 'Conservatoire Botanique' of Corsica is fully aware of the risks and as soon the plants were discovered an eradication programme was initiated. Plants were removed and filters installed.

Source: Contact: Laetitia Hugo, Conservatoire Botanique de Corse, hugot@fr.oleane.com

Additional key words: invasive alien plants, new record **Computer codes:** EICCR, LUDPE, FR

2007/103 A potential biocontrol agent for *Alternanthera philoxeroides*

Alternanthera philoxeroides (Amaranthaceae) known as alligatorweed, is an aquatic perennial plant native to South America and is invasive in freshwater systems around the world. In the EPPO region, it is not widespread and is only recorded in the wild in France and Italy. It alters the ecology of infested sites, restricting light penetration which interfers with the growth of submerged flora and fauna and has also been found infesting crops and pastures.
Although biological control with *Agasicles hygrophila* (Coleoptera: Chrysomelidae) and the moth *Arcola malloi* (Lepidoptera: Pyralidae) is successful in aquatic habitats, there is a need for additional agents to manage the weed in large infestations of natural ecosystems. Accordingly, in a survey in Brazil in 1997, the fungus *Nimbya* (=*Alternaria*) *alternantherae* was discovered and confirmed to be highly damaging to *A. philoxeroides*. Studies were conducted to determine the potential of this fungus for controlling this weed. Several isolates from Brazil, USA and Puerto Rico were compared and no differences in virulence were observed (although a lower dew requirement was demonstrated for the Brazilian isolates). Conidia were more effective than mycelial suspension, and inoculum concentrations of $1x10^5$ and $1x10^6$ conidia per ml provided significant levels of control of the weed in greenhouse and field experiments, respectively. In a host-range study, *Nimbya alternantherae* infected five other plant species from a total of 42 species belonging to 23 families. These five species are *Celosia cristata* and *C. plumosa* (Amaranthaceae), *Beta vulgaris* (sugar beet) and *Spinacia oleracea* (spinach) (Chenopodiaceae) and *Portulacca halimoides* (Portulacaceae). Therefore, if a commercial mycoherbicide based on *N. alternantherae* is developed, and further studies confirm its pathogenocity to cultivated plants, particularly celosia (e.g. an important species for the cut flower industry in Florida), spinach and beet, it will be necessary to clearly indicate on the label that the product should not be sprayed on these crops. *N. alternantherae* has the potential to be an effective mycoherbicide for *A. philoxeroides.*

Source: Pomella AWV, Barreto RW, Charudattan R (2007) *Nimbya alternantherae* a potential biocontrol agent for alligatorweed, *Alternanthera philoxeroides. Biocontrol* **52**(2), 271-288.

Additional key words: invasive alien plants, biological control **Computer codes:** ALRPH

2007/104 *Pueraria phaseoloides* eradication from Santa Cruz Island (Galapagos)

The feasibility of eradication of an introduced plant depends principally on the costs, which in turn depend on the biology, detectability and distribution of the plants as well as other logistical considerations. Information from prior eradication attempts could assist in estimating costs, but there is little information available on the costs of eradication attempts of a specific plant. It therefore seems important to report tactics and costs, in order to contribute to general analyses of the factors that influence costs and feasibility. Since monetary costs change, such a report should not only present financial costs, but also the elements in more stable units such as person-hours, transport (distances) and quantities of herbicide or other material.

Pueraria phaseoloides (Fabaceae) is a close relative of the very invasive *P. lobata*. It is native to tropical Asia and is considered a noxious weed and a quarantine weed by the Global Compendium of Weeds. The plant is widely grown in tropical Ecuador for ground cover in orchards and as a forage plant and soil improver. A bag of seeds of the plant was voluntarily imported to Santa Cruz Island by a farmer in 1995 and sown in a single pasture in an agricultural zone. A few of these plants produced flowers by 1996. The plant was noticed by the Charles Darwin Research Station in March 1996 and when the potential danger of the species was explained to the farmer he agreed to allow the eradication of the plant. The project schedule was as follows:

- March 2006: discovery and initial consultations
- April 2006: search of the species in the field and surroundings, enquiries made to farmers. The plant was only found in the recorded field, application of 41% glyphosate salt from a backpack sprayer was performed.
- April-May 1996: meetings to arrange the eradication and approval by the regional authority.
- Spring 1996, 1997: complete searches of the field, spraying of the plant found. Last plant seen in September 1997.
- March 1998, June 1999, January 2001: complete searches of the field, no plant found.

The total cost of the eradication project was approximately 1600 USD (≈1200 EUR) over five years. About 80% of the total cost was 108 person-hours of labour, 75% of which were spent searching for the plant. It appears that the searching of plants in the field always requires a substantial part of the budget in eradication projects. Eradication was particularly relevant in this case as the place of introduction was clearly identified, was restricted to a small area and was accessible. *Pueraria phaseoloides* is now considered eradicated from Santa Cruz Island.

Source: A Global Compendium of Weeds. http://www.hear.org/gcw/alpha_select_gcw.htm

Tye A (2007) Cost of rapid-response eradication of a recently introduced plant, tropical kudzu (*Pueraria phaseoloides*), from Santa Cruz Island, Galapagos. *Plant Protection Quarterly* **22**(1), 33:34.

Additional key words: invasive alien plants, eradication **Computer codes:** PUEPH,

2007/105 Evaluating the feasibility of eradication for terrestrial weed incursions

Eradication, defined here as the elimination of every single individual of a species from an area in which recolonization is unlikely to occur is a strategy that is favoured wherever possible. Eradication programmes are usually very expensive. Before committing to such a strategy, it is preferable to be confident that eradication can be achieved. The aim of this evaluation process is to develop a means of determining whether a weed incursion is more feasible to eradicate than another.
Many eradication programmes have been conducted for animals, while very few are reported for plants because of major differences between plants and animals:

- Some seeds develop large, persistent seedbanks, extending considerably the eradication programme since eradication can only be considered completed when all plants and viable seeds are eliminated
- Some plants are extremely difficult to detect in the vegetative state or are undetectable as propagules
- Interference with the reproductive process effective for insects (e.g. sterile male release) is not available for weeds.

The first step consists in determining if a weed is a suitable target for eradication. Eradication may be undertaken when all the following questions are answered positively:

- Is there a suitable socio-political environment? Widely-cultivated plants are not suitable targets for eradication, and the more agencies involved in the eradication efforts, the higher the risk of failure
- Can immigration be prevented?
- Are effective control measures likely to be available for all situations? Estimate effort (resources) required to achieve eradication
- Does cost-benefit analysis favour eradication over other management strategies?
- Are resources sufficient to fund the programme to its conclusion?

Assessing the feasibility of weed eradication is done by taking into account the gross infestation area, logistical considerations, weed detectability, weed biological characteristics and control effectiveness.

- Gross infestation area (A): the area over which weeds are distributed and have to be surveyed. Based on eradication attempts in California, it has been showed that eradication of gross infestations areas of <1 ha was almost always possible, that approximately 30% of the infestations between 1 and 100 ha were eradicated, and that about 25% of the infestations between 100 and 1000 ha were eradicated. The relationship between the infested area and the effort required to achieve eradication may vary according to the biology and ecology of the weed and the environmental context
- Logistical considerations (L): the number of infestations as well as the accessibility of infestations are assessed
- Weed detectability (D): weed detection is usually slow, labour-intensive and costly. The search rate (hours/ha) depends on the characteristics of both the target species and the habitats in which it is found. The lasting of the visible stage of the plant within the invaded vegetation is assessed (in months).
  It is also critical that a plant is detected and controlled before it reproduces, detectability is therefore scored according to the visibility of the plant prior to reproduction (whether the vegetation is emergent or not or has distinctive features)
- Weed biological characteristics (B): the fact the species can reproduce through vegetative fragmentation is considered since these individuals may develop this capacity at a young age (e.g. *Tradescantia* spp., *Opuntia* spp.). For species

reproducing by seeds or vegetative propagules, the minimum length of the pre-reproductive period as well as the maximum longevity of seeds or vegetative propagules are assessed
- Control effectiveness (C): the number of treatments required to kill the largest plants, taking into account any expensive procedures required for some infestations as well as consideration of the dispersal mechanisms (pathways involving humans or not).

This evaluation consists in a scoring system allowing the calculation of the eradication effort, defined as the measure of gross infestation area multiplied by the sum of the scores of the logistical considerations, the weed detectability, the weed's biological characteristics and the control effectiveness (Ax(L+D+B+C)). The use of this scoring system has been tested for a few agricultural weeds. Documentation of eradication programme for environmental invasive plants would allow further testing of this evaluation.

Source: Panetta DFD, Timmins SM (2004) Evaluating the feasibility of eradication for terrestrial weed incursions. *Plant Protection Quarterly* **19**, 5-11.

2007/106 9th EMAPI Conference and 2nd WRA international workshop to be held in Perth (AU)

On 2007-09-17/21, the 9th International conference on the Ecology and Management of the Alien Plants Invasions (EMAPI) will be held in Perth (Australia).
The conference will cover topics such as:
- ecological, biological and biogeographical studies on invasive plants
- development of multidisciplinary activities aimed at preventing new incursions and managing existing infestations
- the management of plant invasions
- appropriate legislation, public education and information, and
- any other relevant aspects of plants that invade natural areas.

On 2007-09-14/15, the second international weed risk assessment workshop will also be held in Perth. This workshop will be an opportunity for practitioners, users and those interested in Weed Risk Assessment to meet, exchange ideas and learn about how Weed Risk Assessments are practiced around the world, under different legal and political systems.

Source: Ecology and Management of Invasive Plants Invasions – 9th International Conference http://www.congresswest.com.au/emapi9/program.html

Additional key words: invasive alien species, conference **Computer codes:** AU