ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

# EPPO Reporting Service

**NO. 11 PARIS, 2010-11-01**

**CONTENTS** _____ *Pests & Diseases*

2010/200 - First record of *Anoplophora glabripennis* in the Netherlands
2010/201 - *Anoplophora glabripennis* detected again in the Veneto region, Italy
2010/202 - First record of *Bursaphelenchus xylophilus* in Galicia (Spain)
2010/203 - First report of *Diabrotica virgifera virgifera* in Greece
2010/204 - *Rhynchophorus ferrugineus* occurs in Malta
2010/205 - First report of *Rhynchophorus ferrugineus* occurs in Libya
2010/206 - First report of *Paysandisia archon* in Crete, Greece
2010/207 - *Paysandisia archon* found in Lazio and Lombardia, Italy
2010/208 - First record of *Tuta absoluta* in Turkey
2010/209 - *Drosophila suzukii* found in the Piemonte region (IT)
2010/210 - Situation of *Bemisia tabaci* in Ireland in 2009
2010/211 - Incursion of *Keiferia lycopersicella* in Liguria (Italy): addition to the EPPO Alert List
2010/212 - First finding of *Ralstonia solanacearum* in the Czech Republic
2010/213 - First report of *Monilinia fructicola* in Slovenia
2010/214 - First record of *Mycosphaerella dearnessii* in Lithuania
2010/215 - First report of *Ciborinia camelliae* in Ireland
2010/216 - First report of *Pseudomonas syringae* pv. *actinidiae* in New Zealand
2010/217 - First report of *Tomato apical stunt viroid* in Austria
2010/218 - First report of *Elderberry symptomless virus* and Elderberry latent virus in Austria

_____ *Invasive Plants*

2010/219 - First record for *Eichhornia crassipes* in the wild in Sardinia (IT)
2010/220 - *Hydrocotyle ranunculoides* found in Northern Ireland (GB)
2010/221 - Germination capacity of cultivars of *Buddleia davidii*
2010/222 - *Buddleia davidii* in Corsica (France)
2010/223 - EPPO recommendations on *Sicyos angulatus*
2010/224 - The EPPO prioritization process for invasive alien plants
2010/225 - Ecosystem services and invasive alien plants
2010/226 - The Panel on Plant Health of the European Food Safety Authority develops guidance for the assessment of environmental risks of plant pests
2010/227 - Invasive species, climate change and ecosystem-based adaptation
2010/228 - Outcome on invasive alien species of 10th Conference of the Parties of the Convention on Biological Diversity (Nagoya, JP, 2010-10-18/29)
2010/229 - International Symposium on 'System Intensification towards Food & Environmental Security' (Kalyani, IN, 2011-02-24/27)
2010/230 - 3rd International Symposium on Weeds and Invasive Plants (Agricultural Weeds and Plant Invaders) 2011-10-02/07 in Ascona (Monte Verità, CH)

21 Bld Richard Lenoir
75011 Paris

Tel. : 33 1 45 20 77 94
Fax : 33 1 70 76 65 47

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

## 2010/200 First record of *Anoplophora glabripennis* in the Netherlands

The NPPO of the Netherlands recently informed the EPPO Secretariat of the first record of *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A1 List) on its territory. On 2010-11-16, the identity of the pest was confirmed on the basis of morphological analysis of wing covers and DNA analysis of larval remains which had been found in 1 tree in a lane of *Acer pseudoplatanus* in the municipality of Almere. In total 16 exit holes and 3 larvae were detected in one tree. Observations indicated that some exit holes had been formed recently, whereas others were estimated to be at least three years old. The exact age of exit holes is still to be determined. Signs of the presence of *A. glabripennis* have also been detected on 6 adjacent trees in a lane of *A. pseudoplatanus* trees. These trees are located in an industrial area of Almere and were planted approximately ten years ago. In this area there are no tree nurseries and only a limited number of public or private gardens, but a nature conservation area is situated within the surveillance area of 1 kilometre radius around the infested site. It is considered that the most likely source of the outbreak is wood packaging material from Asia because there are several companies importing goods from Asia in the vicinity. Investigations are being carried out to identify the possible source of this infestation. The following phytosanitary measures aiming at a prompt eradication of *A. glabripennis* are being taken and include the following:

1) Destruction of all symptomatic trees, as well as all deciduous trees and shrubs (with a diameter of 2.5 cm or more) located within a range of 100 m from the infested trees. Each individual plant will be dissected and analysed by the national reference laboratory for any signs of the pest. It is envisaged to finalize tree destruction by January 2011.
2) Restrictions on the movement of host plant material (with a diameter of more than 2.5 cm) within a range of 500 m around the infested trees. This material should be officially reported and destroyed according to official procedures.
3) Specific surveillance (also involving specialized tree climbers) will be carried out on an annual basis within a radius of 1 000 m around the affected trees for at least the next four years.

The pest status of *Anoplophora glabripennis* in the Netherlands is officially declared as: **Transient – Isolated outbreak, actionable, under eradication.**

**Source:** NPPO of the Netherlands (2010-11).

**Additional key words:** new record **Computer codes:** ANOLGL, NL

## 2010/201 *Anoplophora glabripennis* detected again in the Veneto region, Italy

In Italy, *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A1 List) was found for the first time in Lombardia in June 2007 where it is subject to eradication measures (EPPO RS 2007/166). In June 2009, another isolated outbreak was discovered in a private garden in Cornuda in the Veneto region (EPPO RS 2009/157). In 2010, the NPPO of Italy reported another outbreak in this region. A group of trees infested by *A. glabripennis* has been found in the municipality of Maser (province of Treviso). All infested trees are being destroyed and investigations are under way to identify the possible source of this new infestation.

The situation of *Anoplophora glabripennis* in Italy can be described as follows: **Present, isolated outbreaks detected in Lombardia (Corbetta in 2007), and Veneto (Cornuda in 2009, and Maser in 2010), under eradication.**

**Source:** NPPO of Italy, 2010-11.

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

## 2010/202 First record of *Bursaphelenchus xylophilus* in Galicia (Spain)

The NPPO of Spain recently informed the EPPO Secretariat about the first report of *Bursaphelenchus xylophilus* (EPPO A2 List) in Galicia. Because of the presence of the pinewood nematode in Portugal since 1999, intensive surveys and phytosanitary checks are being carried out in Spain. In November 2008, *B. xylophilus* was detected for the first time in Spain (EPPO RS 2010/051) in a single tree of *Pinus pinaster*, located in Villanueva de la Sierra, in the province of Cáceres (Extremadura). Phytosanitary measures were taken in accordance with the EU Commission Decision 2006/133/CE and a set of actions aimed to eradicate *B. xylophilus* were carried out with successful results. Since 2008, a National Contingency Plan and a National Action Plan for pinewood nematode control have been implemented in Spain.
In November 2010, the presence of *B. xylophilus* was confirmed in 7 trees (*Pinus pinaster*) in a forest area located in the municipality of 'As Neves' (province of Pontevedra), in Galicia. According to the legal requirements in force, an intensive survey is being carried out in order to demarcate the affected area around the initial outbreak. At the same time, a specific Action Plan is also being implemented to eradicate *B. xylophilus* from Galicia.
The situation of *Bursaphelenchus xylophilus* in Spain can be described as follows: **Transient, 1** *Pinus pinaster* **found infected near Cáceres (Extremadura) in 2008, 7** *P. pinaster* **found infected in 'As Neves' (Galicia) in 2010, under eradication.**

**Source:** NPPO of Spain (2010-11).

Commission Decision 2006/133/EC of 13 February 2006 requiring Member States temporarily to take additional measures against the dissemination of *Bursaphelenchus xylophilus* (Steiner et Buhrer) Nickle *et al*. (the pine wood nematode) as regards areas in Portugal, other than those in which it is known not to occur. http://www.eppo.org/ABOUT_EPPO/EPPO_MEMBERS/phytoreg/eu_texts/2006-133-EC-e.pdf

**Additional key words:** detailed record **Computer codes:** BURSXY, ES

## 2010/203 First report of *Diabrotica virgifera virgifera* in Greece

In 2009, the presence of *Diabrotica virgifera virgifera* (Coleoptera: Chrysomelidae – EPPO A2 List) was detected for the first time in Greece during an official survey. Pheromone traps were placed in most of the maize-producing areas (31 prefectures) and inspected every 10 to 15 days from mid-June to September 2009. Adults of *D. virgifera virgifera* were captured in 4 prefectures (Thessaloniki, Serres, Florina and Pieria) of Northern Greece. The first capture was made on 2009-07-13 and the last on 2009-08-30. The pest was caught in maize fields near the main roads that connect Northern Greece with other countries of the Balkan Peninsula. It is considered that the pest population is rather low in all infested areas. The numbers of insects caught were as follows: Fiorina (201 in 4 trapping sites),

Thessaloniki (51 in 3 sites), Pieria (15 in 1 site), Serres (7 in 6 sites). Phytosanitary measures are being taken to contain the pest.
The situation of *Diabrotica virgifera virgifera* in Greece can be described as follows: **Present, first detected in 2009 in 4 prefectures (Thessaloniki, Serres, Florina and Pieria) of Northern Greece.**

**Source:** Michaelakis AN, Papadopoulos NT, Antonatos SA, Zarpas K, Papachristos DP (2010) First data on the occurrence of *Diabrotica virgifera virgifera* LeConte (Coleoptera: Chrysomelidae) in Greece. *Hellenic Plant Protection Journal* **3**(1), 29-32.

**Additional key words:** new record **Computer codes:** DIABVI, GR

## 2010/204 *Rhynchophorus ferrugineus* occurs in Malta

On the island of Malta, the occurrence of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae – EPPO A2 List) was reported in October 2007. Official control measures are being taken to prevent further introduction or spread of the pest.
The situation of *Rhynchophorus ferrugineus* in Malta can be described as follows: **Present, first found in 2007, under official control.**

**Source:** Ministry for rural affairs and the Environment (2007) Red palm weevil, in Malta. Gazzetta tal-Gvern ta' Malta.
http://www.agric.gov.mt/Downloads/red_palm_weevil_gov_gazette_16thoct.pdf

**Additional key words:** new record **Computer codes:** RHYCFE, MT

## 2010/205 First report of *Rhynchophorus ferrugineus* occurs in Libya

In Libya, the presence of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae – EPPO A2 List) was noted for the first time in 2009. A student from Tobruk (in the north-east of Libya) had collected some specimens which were identified as *R. ferrugineus*. More beetles were subsequently caught by pheromone traps placed near the initial location.
The situation of *Rhynchophorus ferrugineus* in Libya can be described as follows: **Present, first found in 2009 near Tobruk.**

**Source:** Personal communication with Prof. Aziz Ajlan, King Faisal University, Saudi Arabia (2009-04).
Red palm weevil website: www.redpalmweevil.com

**Additional key words:** new record **Computer codes:** RHYCFE, LY

## 2010/206 First report of *Paysandisia archon* in Crete, Greece

In September 2006, the presence of *Paysandisia archon* (Lepidoptera: Castniidae – EPPO A2 List) was observed for the first time in Heraklion (Crete) infesting *Washingtonia robusta, Trachycarpus fortunei* and *Chamaerops humilis*. In December 2006, *P. archon* was found in Agios Stefanos (Attica) in mainland Greece on *Trachycarpus fortunei*. These are the first records of *P. archon* in Greece.

The situation of *Paysandisia archon* in Greece can be described as follows: **Present, first found in 2006 in Crete and Attica.**

**Source:** Vassarmidaki M, Thymakis N, Kontodimas DC (2006) First record in Greece of the palm tree pest *Paysandisia archon*. *Entomologia Hellenica* (2005-2006), 44-47.

**Additional key words:** new record **Computer codes:** PAYSAR, GR

## 2010/207 *Paysandisia archon* found in Lazio and Lombardia, Italy

In Italy, *Paysandisia archon (*Lepidoptera: Castniidae – EPPO A2 List) was first reported from Campania in 2002. It was then reported from several other Italian regions (i.e. Apulia, Campania, Friuli-Venezia Giulia, Lazio, Liguria, Marche, Toscana, Sicilia, and Veneto). The NPPO of Italy recently informed the EPPO Secretariat of two new outbreaks in Lazio and Lombardia. In both regions, all infested palm trees were destroyed and monitoring surveys are being carried out to delimit the extent of the infestation.

- In Lazio, *P. archon* was detected in the municipalities of Castelgandolfo and Grottaferrata (province of Rome). In both cases it was found in private gardens on ornamental palm trees (*Chamaerops, Phoenix* and *Trachycarpus* spp.)
- In Lombardia, *P. archon* was detected in a nursery located in the municipality of Maderno del Garda (province of Brescia).

The situation of *Paysandisia archon* in Italy can be described as follows: **Present, first reported in 2002, outbreaks have been reported from Apulia, Campania, Friuli-Venezia Giulia, Lazio, Liguria, Lombardia, Marche, Toscana, Sicilia, Veneto. Under official control.**

**Source:** NPPO of Italy (2010-10 and 2010-11).

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

## 2010/208 First record of *Tuta absoluta* in Turkey

In August 2009, insect galleries were observed on the aerial parts of tomato plants (*Lycopersicon esculentum*) in the Urla district (Izmir province, Aegean region), in Turkey. Larvae mined galleries in apical buds, stems, leaves, and tomato fruits. In September 2009, the pest was identified as *Tuta absoluta* (Lepidoptera: Gelechiidae – EPPO A2 List). Surveys with pheromone traps were conducted in other tomato-producing regions, and the presence of *T. absoluta* was also detected in the Çanakkale province, Marmara region. Phytosanitary measures were applied against *T. absoluta* and included trapping, destruction of infested plants, and application of insecticides. This is the first report of *T. absoluta* in Turkey.

The situation of *Tuta absoluta* in Turkey can be described as follows: **Present, first found in 2009 in the Aegean and Marmara regions (Izmir and Çanakkale provinces, respectively), under official control.**

**Source:** Kılıç T (2010) First record of *Tuta absoluta* in Turkey. *Phytoparasitica* **38**(3), 243-244.

**Additional key words:** new record **Computer codes:** GNORAB, TR

## 2010/209 *Drosophila suzukii* found in the Piemonte region (IT)

In Italy, *Drosophila suzukii* (Diptera: Drosophilidae – EPPO Alert List) was first found in 2009 in the province of Trento (Trentino-Alto Adige region) damaging small fruit crops (EPPO RS 2010/007). The NPPO of Italy recently informed the EPPO Secretariat that *D. suzukii* was found in Piemonte region during a specific survey. The pest was detected in the provinces of Cuneo (municipalities of Boves, Martiniana Po and Robilante) and Torino (municipality of Grugliasco). The pest was caught in the following small fruit crops: strawberry (*Fragaria ananassa*), raspberry (*Rubus idaeus*), blueberry (*Vaccinium* spp.), and blackberry (*Rubus* spp.). At present, no damage is reported from Piemonte.
The situation of *Drosophila suzukii* in Italy can be described as follows: **Present, first detected in 2009, it occurs in Trentino-Alto Adige region (Trento, Bolzano provinces) and Piemonte (Cuneo, Torino provinces), Toscana.**

**Source:** NPPO of Italy (2010-11).

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

## 2010/210 Situation of *Bemisia tabaci* in Ireland in 2009

The results of the 2009 survey for *Bemisia tabaci* (Homoptera: Aleyrodidae - EPPO A2 List) were sent by the NPPO of Ireland to the EPPO Secretariat. Inspections were carried out at points of entry, places of production as well as wholesale retail premises. In 2009, the pest was detected on 28 imported consignments (see EPPO reports on notifications of non-compliance). *B. tabaci* was detected in 7 Irish nurseries on *Euphorbia pulcherrima*. The infested plants had all been supplied by other EU member states. All outbreaks were eradicated in 2009.
The situation of *Erwinia amylovora* in Ireland can be described as follows: **Absent, outbreaks are occasionally found but systematically submitted to eradication measures.**

**Source:** NPPO of Ireland (2010-07).

**Additional key words:** detailed record **Computer codes:** ERWIAM, IE

## 2010/211 Incursion of *Keiferia lycopersicella* in Liguria (Italy): addition to the EPPO Alert List

In November 2008, the presence of *Keiferia lycopersicella* (Lepidoptera: Gelechiidae) was detected on a tomato crop (*Lycopersicon esculentum* cvs. 'Seni' and 'Cuor di Bue') located in the municipality of Arenzano (province of Genoa) in Liguria region, Italy. The affected tomato crop (approximately 0.5 ha) was heavily infested by *K. lycopersicella* as well as by *Tuta absoluta*, thus the damage observed could not be attributed to one or the other species. However, observations made on collected plant material showed that 80-85% of the larval population was *K. lycopersicella*. Following this first record, the Regional Plant Protection Organization of Liguria carried out specific investigations in the area concerned but did not detect the pest. For the moment, it is assumed that *K. lycopersicella* did not establish in Italy. Considering that *K. lycopersicella* is known to be a serious pest of tomato crops in the Americas, the EPPO Panel on Phytosanitary Measures recommended its addition to the EPPO Alert List.

*Keiferia lycopersicella* (Lepidoptera: Gelechiidae - tomato pinworm)

| | |
|---|---|
| Why | *Keiferia lycopersicella* came to EPPO's attention because it was detected in 2008 damaging a tomato crop in Italy (1 production site in Liguria). *K. lycopersicella* originates from the Americas (probably Central America) where it is considered as a significant pest of tomato. The EPPO Panel on Phytosanitary Measures considered that this pest may represent a threat to the EPPO region, and suggested its addition to the EPPO Alert List. |
| Where | *K. lycopersicella* is considered to be a tropical and sub-tropical species. In North America, it occurs outdoors in Mexico and the Southern US states. In cooler areas, it is found in glasshouses (in most cases introduced with infested transplants) from which it can also escape to nearby fields during summer.<br>**EPPO region:** an incursion was detected in Italy (Liguria region) in 2008 in one tomato crop, but since then the pest has not been found again. It is considered that the pest did not establish.<br>**North America**: Canada (Ontario), Mexico, USA (Arkansas, Arizona, California, Delaware, Florida, Georgia, Hawaii, Illinois, Mississippi, Missouri, North Carolina, Pennsylvania, Tennessee, Texas, Virginia).<br>**Central America and the Caribbean**: Bermuda, Costa Rica, Cuba, Dominican Republic, Haiti, Jamaica, Trinidad and Tobago (Trinidad).<br>**South America**: Bolivia, Colombia, Peru, Venezuela. |
| On which plants | The main host of *K. lycopersicella* is tomato (*Lycopersicon esculentum*) but other Solanaceae can be attacked, such as eggplant (*Solanum melongena*) or potato (*S. tuberosum*). Weed species like *S. carolinense, S. xanthii, S. umbelliferum* and *S. bahamense* are recorded as hosts. *Capsicum* spp., *Nicotiana tabacum* and the weed, *S. nigrum*, are considered as unsuitable host plants. |
| Damage | Damage is caused by larvae which feed on flowers, leaves and fruit of tomato plants. Larvae mine the leaves, feeding only on the inner part and leaving the upper and lower surfaces inctact. Later, they can form protective leaf folds under which which they continue to feed. This type of feeding causes large blotches adjacent to each leaf fold. Heavy infestations can lead to the destruction of many leaves (burnt appearance of the plant) which considerably reduces tomato yield. The most important damage occurs when larvae enter tomato fruit. They generally bore under the calyx, but entry holes are difficult to detect (small 'pin holes'). After a while, brown granular frass can be seen at the edge of the calyx. Larvae create narrow blackened tunnels into the fruit which can then be invaded by secondary pathogens.<br>Adults are small, brownish or grayish moths (wingspan of 9-12 mm). They are nocturnal and generally hide during the day. *L. lycopersicella* can be confused with other species having the same habits, in particular with *Tuta absoluta* and *Phthorimaea operculella*. Eggs are laid on leaves, singly or in small clusters. There are 4 larval stages (mature larvae reach 5.8-7.9 mm long) and pupation usually takes place in the soil (a loosely woven pupal cell intermingled with soil particles is formed near the soil surface). The duration of the life cycle depends on the climatic conditions, for example in warm areas of the USA a generation can be completed within 26 to 34 days during summer. There are several overlapping generations per year (e.g. 7 to 8 overlapping generations in Florida).<br>Pictures of the pest can be viewed on the Internet:<br>http://www.insectimages.org/browse/subthumb.cfm?sub=8645<br>http://www.chemtica.com/Tuta/TutaWeb/PDF/Tuta%20Identification%20guide.pdf |
| Transmission | Adults can fly but data is lacking on the natural spread potential of *K. lycopersicella*. In North America, it has been observed that many tomato crop infestations resulted from shipments of infested containers used when harvesting, crates, fruits or seedlings, as well as from pest populations which had survived on plant debris left in the fields after harvest or in compost heaps. |

| | |
|---|---|
| Pathway | Plants for planting, fruits from countries where *K. lycopersicella* occurs; packing material that has transported infested tomatoes. |
| Possible risks | Tomatoes are widely grown across the EPPO region (indoors and outdoors) and are of high economic value. *K. lycopersicella* is considered as a significant pest of tomatoes in countries where it occurs. High infestation levels can lead to severe damage, and economic losses have been reported in the absence of appropriate control measures both in outdoor and glasshouse tomato crops. IPM strategies have been developed against *K. lycopersicella* (i.e. use of locally produced and healthy tomato transplants, monitoring with pheromone traps, mating disruption, timely applications of insecticides, use of biocontrol agents such as *Apenteles* spp. or *Trichogramma pretiosum*). The development of resistance to insecticides has been reported for *K. lycopersicella*. Because of its hidden mode of life, the pest is difficult to detect by visual inspection of fruits, and entry holes are very small. The incursion of *K. lycopersicella* in Italy clearly demonstrates that the pest has been able to enter the EPPO region (even if the circumstances of this introduction remain unknown). Although, further studies are needed, it seems that *K. lycopersicella* has the potential to establish in the EPPO region (outdoors in the southern part and indoors across the entire region). It can be noted that Shutova (1984) identified *K. lycopersicella* as a potential threat to tomato-growing areas of Central and Eastern Europe; and this pest is currently included in the quarantine list of Moldova. The fact that recent outbreaks of a similar pest, *Tuta absoluta*, in the EPPO region have had major consequences on pest management programmes in tomato crops, further advocates for the importance of avoiding the introduction of *K. lycopersicella* into the EPPO region. |
| Source(s) | Carpinera J (2001) *Handbook of vegetable pests.* Academic Press (US), 761 pp.<br>Charlton RE, Wyman JA, McLaughlin JR, Du JW, Roelofs WL (1991) Identification of sex pheromone of tomato pinworm, *Keiferia lycopersicella* (Wals.). *Journal of Chemical Ecology* **17**(1), 175-183 (abst.).<br>Cubillo D, Hilje L, Cartin VM (1996) Spatial distribution and comparison of sampling methods for larvae of *Keiferia lycopersicella* (Lepidoptera: Gelechiidae) in Alajuela, Costa Rica. *Manejo Integrado de Plagas* **39**, 10-16 (abst.).<br>Ferguson G, Shipp L (2002) New pests in Ontario greenhouse vegetables. *Bulletin OILB/SROP* **25**(1), 69-72 (abst.).<br>Geraud-Pouey F, Chirinos DT, Rivero G (1997) Population dynamics and damage caused by Gelechiidae leaf miners of tomatoes in the north western region of Zulia State, Venezuela. *Boletin de Entomologia Venezolana* **12**(1), 43-50 (abst.).<br>Geraud-Pouey F, Perez G (1994) [Notes on *Keiferia lycopersicella* (Walsingham), Lepidoptera: Gelechiidae, in Venezuela]. *Boletin de Entomologia Venezolana* **9**(2), 203-206 (in Spanish). Available online: http://avepagro.org.ve/entomol/v09-2/v0902a06.html<br>Jones MT (1985) Use of *Bacillus thuringiensis* in pest management of the tomato ecosystem in Trinidad. *Proceedings of the 20th Caribbean Food Crops Society Meeting (St Croix, US Virgin Islands, 1984-10-24/26),* 176-179.<br>Morales-Payan JP, Santo BM (199) Control of the tomato fruit worm (*Keiferia lycopersicella*) with imidacloprid. *Proceedings of the 33rd Caribbean Food Crops Society Meeting (Puerto Rico, 1997-07-06/12),* 340-342.<br>NPPO of Italy (2010-07).<br>Sannino L, Espinosa B (2009) *Keiferia lycopersicella*, una nuova tignola su pomodoro. *L'Informatore Agrario* no. 4, 69-70.<br>Schuster DJ (1989) Development of tomato pinworm (Lepidoptera: Gelechiidae) on foliage of selected plant species. *Florida Entomologist* **72**(1), 216-219.<br>Schuster DJ, Brewer MJ, Alvarado-Rodriguez B, Sorensen KA, Trumble JT (1996) Estimating resistance to methomyl in the tomato pinworm (Lepidoptera: Gelechiidae) using a pheromone trap bioassay. *Crop Protection* **15**(3), 283-287.<br>Schuster DJ, McLaughlin JR, Mitchell ER (2001) Comparison of formulations and dispensers for mating disruption of the tomato pinworm, *Keiferia lycopersicella* (Wals.) (Lepidoptera: Gelechiidae). *Proceedings of the Florida State Horticultural Society* **113**, 205-209 (abst.).<br>Shipp JL, Ferguson GM, Hunt DWA (2001) *Keiferia lycopersicella* (Walsingham), tomato pinworm (Lepidoptera: Gelechiidae). In: *Biological Control Programmes in Canada, 1981-2000* (eds. PG Mason and JT Huber), CABI Wallingford (GB), 139-140.<br>Shipp JL, Wang K, Ferguson G (1998) Evaluation of commercially produced *Trichogramma* spp. (Hymenoptera: Trichogrammatidae) for control of tomato pinworm, *Keiferia lycopersicella* (Lepidoptera: Gelechiidae), on greenhouse tomatoes. *Canadian Entomologist* **130**(5), 721-731.<br>Shutova NN (1984) [The tomato moth]. *Zashchita Rastenii* **11**, 54-55 (in Russian).<br>Sierra Pena A, Pozo Velasquez E, Cruz Leyva D, Gonzalez Yirat L (2009) Distribucion de *Keiferia lycopersicella* (Walsingham) en plantas de tomate en casas de cultivo protegido. *Fitosanidad* **13**(1), p 47 (abst.). |

Ward CR, Mitchell ER, Sparks AN, Serrate H, Villarroel D (1980) Response of the fall armyworm and other lepidopterous pests of Bolivia to synthetic pheromones. *Florida Entomologist* **63**(1), 151-153.
Williamson TM, Murray RC (1993) Field evaluation of eight insecticides for control of the tomato pinworm, *Keiferia lycopersicella* in Jamaica. *Bulletin - Research and Development Division, Ministry of Agriculture, Jamaica* **68**, 45-51 (abst.).
INTERNET
CABI Crop Protection Compendium. Datasheet on *Keiferia lycopersicella*. http://www.cabi.org/cpc/
Center for Invasive Species and Ecosystem Health at the University of Georgia. *Keiferia lycopersicella* by Sparks A Jr and Riley DG (undated). http://wiki.bugwood.org/Keiferia_lycopersicella
National Information System for the Regional IPM Centers (US)
Crop profile for tomatoes in New Jersey (January 2007).
http://www.ipmcenters.org/cropprofiles/docs/NJtomatoes.pdf
Crop profile for tomatoes in North Carolina (July 2007).
http://www.ipmcenters.org/cropprofiles/docs/nctomatoes.pdf
Crop profile for tomatoes in Tennessee (July 2002).
http://www.ipmcenters.org/cropprofiles/docs/tntomatoes.pdf
Crop profile for tomatoes in Virginia (June 2001).
http://www.ipmcenters.org/cropprofiles/docs/VAtomato.html
Ministry of Agriculture, Food and Rural Affairs - Ontario (CA). Factsheet on Tomato pinworm: biology and control strategies for greenhouse tomato crops by Ferguson G and Shipp L (dated August 2009).
http://www.omafra.gov.on.ca/english/crops/facts/04-025.htm
University of Florida. IFAS Extension. Tomato pinworm, *Keiferia lycopersicella* (Walshingham) by SL Poe (dated 1999). http://edis.ifas.ufl.edu/pdffiles/IN/IN23100.pdf

EPPO RS 2010/211
Panel review date - Entry date 2010-11

## 2010/212 First finding of *Ralstonia solanacearum* in the Czech Republic

The NPPO of the Czech Republic recently informed the EPPO Secretariat of the first finding of *Ralstonia solanacearum* (EPPO A2 List) on its territory. The pathogen was detected in one sample of surface water taken from the Labe River during the annual official survey on surface water which was conducted in accordance with article 2 of the EU Council Directive 98/57/EC. This water sample was collected on 2010-09-15 in Počeplice (between the cities of Mělník and Litoměřice), and the identity of the bacterium was confirmed by biological tests on 2010-10-12. Investigations have been initiated by the Czech NPPO to establish the extent of the contamination in accordance with the EU Council Directive 98/57/EC [article 5(1)(c)(i)].
The pest status of *Ralstonia solanacearum* in the Czech Republic is officially declared as: **Present, one record, found in one sample of river water.**

**Source:** NPPO of the Czech Republic (2010-11).

Council Directive 98/57/EC of 20 July 1998 on the control of *Ralstonia solanacearum* (Smith) Yabuuchi *et al*. Official Journal of the European Union L 235, 1-74.

**Additional key words:** new record **Computer codes:** RALSSO, CZ

## 2010/213 First report of *Monilinia fructicola* in Slovenia

In August 2009, symptoms of brown rot (fruit lesions, mummified fruits) were observed in Slovenia on mature peaches (*Prunus persica* cv. 'Royal Glory'). Affected fruits were found in a 5-year-old orchard in the region of Goriška (western part of Slovenia). The pathogen was isolated in pure culture and identified on the basis of morphological and molecular characters. The presence of *Monilinia fructicola* (EPPO A2 List) was detected in diseased fruits. In September 2009, peach and nectarine orchards located within a 5 km radius from the outbreak site were surveyed and *M. fructicola* was confirmed on mummified fruits

from 7 orchards. The pathogen was not detected in orchards from other regions. This is the first record of *M. fructicola* in Slovenia.
The situation of *Monilinia fructicola* in Slovenia can be described as follows: **Present, first detected in 2009, in a limited number of orchards in Goriška region (West of Slovenia).**

**Source:** Munda A, Viršček Marn M (2010) First report of brown rot caused by *Monilinia fructicola* affecting peach orchards in Slovenia. *Plant Disease* **94**(9), p 1166.

**Additional key words:** new record **Computer codes:** MONIFC, SI

## 2010/214 First record of *Mycosphaerella dearnessii* in Lithuania

The NPPO of Lithuania recently informed the EPPO Secretariat of the first occurrence of *Mycosphaerella dearnessii* (anamorph *Lecanosticta acicola* – EPPO A2 List) on its territory. The pathogen was detected in the Curonian Lagoon near the Baltic Sea in the Klaipeda region (West of Lithuania). Phytosanitary measures are being elaborated.
The situation of *Mycosphaerella dearnessii* in Lithuania can be described as follows: **Present, first found in 2010 in the Curonian Lagoon (Klaipeda region), under official control.**

**Source:** NPPO of Lithuania (2010-11).

**Additional key words:** new record **Computer codes:** SCIRAC, LT

## 2010/215 First report of *Ciborinia camelliae* in Ireland

The NPPO of Ireland recently informed the EPPO Secretariat about the finding of *Ciborinia camelliae* (EPPO A2 List) on its territory. In April 2010, laboratory analysis confirmed the presence of *C. camelliae* in a nursery located in county Waterford. Phytosanitary measures were taken to prevent the spread of the pathogen.
The situation of *Ciborinia camelliae* in Ireland can be described as follows: **Present, first detected in 2010 in a nursery (county Waterford), under official control.**

**Source:** NPPO of Ireland (2010-04).

**Additional key words:** new record **Computer codes:** SCLECA, IE

## 2010/216 First report of *Pseudomonas syringae* pv. *actinidiae* in New Zealand

In November 2010, the Ministry of Agriculture and Forestry of New Zealand confirmed the presence of bacterial canker of kiwifruit caused by *Pseudomonas syringae* pv. *actinidiae* (EPPO Alert List) on its territory. The bacterium was detected in several kiwifruit orchards (confirmed in 92 orchards as of 2010-11-29), mainly located in the regions of Hawke's Bay and Bay of Plenty (North Island). Containment measures are being elaborated against the disease.
The situation of *Pseudomonas syringae* pv. *actinidiae* in New Zealand: **Present, first detected in 2010 in several kiwifruit orchards (North Island), under official control.**

**Source:** Biosecurity New Zealand (2010-11). http://www.biosecurity.govt.nz
New Zealand parliament. Questions for oral answer. Kiwifruit, *Pseudomonas syringae* pv. *actinidiae* – Government response.
http://www.parliament.nz/en-NZ/PB/Business/QOA/b/b/5/49HansQ_20101118_00000003-3-Kiwifruit-Pseudomonas-syringae-pv-Actinidiae.htm
ZESPRI – PSA Bacterial kiwifruit vine disease. Latest updates.
http://www.zespri.com/psa/latest-info.html

**Additional key words:** new record **Computer codes:** PSDMAK, NZ

## 2010/217 First report of *Tomato apical stunt viroid* in Austria

The NPPO of Austria recently informed the EPPO Secretariat of the first record of *Tomato apical stunt viroid* (*Pospiviroid*, TASVd – EPPO Alert List) on its territory. During a survey on another viroid (*Potato spindle tuber viroid* – EPPO A2 List), TASVd was detected (RT-PCR, sequencing) in asymptomatic plants of *Solanum jasminoides* in Oberösterreich. The infected plants were found in a trading company and investigations revealed that they had been imported from another EU member country (which was duly informed). The Regional Plant Protection Organization of Oberösterreich could not take any measures as the plants had already been sold before test results were available.
The pest status of *Tomato apical stunt viroid* in Austria is officially declared as follows: **Transient: not actionable, local outbreak.**

**Source:** NPPO of Austria (2010-10).

**Additional key words:** new record **Computer codes:** TASVD0, AT

## 2010/218 First report of *Elderberry symptomless virus* and Elderberry latent virus in Austria

The NPPO of Austria recently informed the EPPO Secretariat of the first findings of *Elderberry symptomless virus* (*Carlavirus* - syn. Elderberry virus A) and Elderberry latent virus (tentative *Carmovirus*) on *Sambucus* sp. in Steiermark. Samples of cultivated *Sambucus* trees were collected and sent to the NPPO laboratory for diagnosis. Electron microscopy revealed the presence of the above viruses. The NPPO ordered the uprooting of the infested trees and a treatment against aphids. In addition, it was prohibited to replant *Sambucus* trees in the infected area.
The pest status of *Elderberry symptomless virus* and Elderberry latent virus in Austria is officially declared as: **Local outbreaks; transient: actionable, under eradication.**

**Note**: both *Elderberry symptomless virus* and Elderberry latent virus are reported to occur in Europe and North America (without much detail). *Elderberry symptomless virus* is transmitted by aphids and Elderberry latent virus has no known vectors.

**Source:** NPPO of Austria (2010-02).

ICTVdB descriptions. http://www.ictvdb.org/Ictv/index.htm

**Additional key words:** new record **Computer codes:** PHYP64, AT

## 2010/219 First record for *Eichhornia crassipes* in the wild in Sardinia (IT)

In Riola Sardo (on the mid-western coast of Sardinia, Italy), *Eichhornia crassipes* (Pontederiaceae, EPPO A2 List) was found for the first time in the wild in a channel of the Mar'e Foghe river. Within 2 months, the plant was able to cover an area of 150 m wide and over 8 km long. Among the very dense cover of *Eichhornia crassipes*, *Hydrocotyle ranunculoides* could also be found.

**Source:** Meloni G (2010) Giacinto d'acqua, l'alieno che minaccia di soffocare lo stagno di Cabras. La nuova. 23 ottobre. http://lanuovasardegna.gelocal.it/dettaglio/giacinto-dacqua-lalieno-che-minaccia-di-soffocare-lo-stagno-di-cabras/2586011

Giuseppe Brundu, pers. comm., 2010., E-mail: Giuseppe Brundu gbrundu@tin.it

**Additional key words:** invasive alien plants **Computer codes:** EICCR, IT

## 2010/220 *Hydrocotyle ranunculoides* found in Northern Ireland (GB)

*Hydrocotyle ranunculoides* (Apiaceae, EPPO A2 List of Invasive Alien Plants) has been discovered on the banks of the river Lagan, one of the major waterways in Northern Ireland's (GB). Five tonnes of the plant have already been removed from the river banks.

**Source:** BBC News (2010) River Lagan under attack from invading alien plants. News Northern Ireland. 4th of November 2010. http://www.bbc.co.uk/news/uk-northern-ireland-11693434

**Additional key words:** invasive alien plants **Computer codes:** HYDRA, UK

## 2010/221 Germination capacity of cultivars of *Buddleia davidii*

Relationships between the naturalized forms of *Buddleia davidii* (Buddleiaceae, EPPO List of Invasive Alien Species) and cultivars obtained from classical breeding have been studied, as well as the risk that these cultivars could invade the environment. Experiments on the quantity of seeds produced and germination capacity showed that the cultivarsfrom classical breeding had an equal or superior potential for spread compared to the naturalized forms. This increased potential for spread could be partly explained by the fact that the selection has been made on the large size of their inflorescences, the precocity and long lasting period of flowering, and vigourous growth. These experiments also highlighted that the germination capacity of the seeds produced by cultivars from classical breeding was higher and more homogeneous when compared to naturalized *B. davidii* seeds. This type of experiment could be taken as a basis when developing tests for the evaluation of other plants considered as invasive.

**Source:** Drin B (2006) Influence du pouvoir germinatif des cultivars de *Buddleja davidii* Franch. sur la colonisation des espaces naturels. Travail de diplôme. Ecole d'ingénieur de Lullier. Ecole d'ingénieur de Changins (CH). 72 p.

**Additional key words:** invasive alien plants **Computer codes:** BUDDA

## 2010/222 *Buddleia davidii* in Corsica (France)

In Corsica (France), *Buddleia davidii* (Buddleiaceae, EPPO List of Invasive Alien Species) is known to occur in the following locations:

- In 1991, observed near Lama (North of the Island), on rocky road sides;
- In 2001, observed in Vivario on a road side, and in Venaco in a landfill for waste disposal area (central Corsica);
- In 2010, observed in Guagno-Les-Bains on a road side.

**Source:** Jeanmonod D & Schlüssel A (ed.) (2002) Notes et contributions à la flore de Corse, XVIII. *Candollea* **56**, 327-362

Jeanmonod D & Burdet HM (eds) (1992) Notes et contributions à la flore de Corse, VIII. *Candollea* **47**, 267-318.

Personal communication with Daniel Jeanmonod, Principal conservator at the University of Geneva, E-mail: Daniel.Jeanmonod@ville-ge.ch

**Additional key words:** invasive alien plants, records **Computer codes:** BUDDA, FR

## 2010/223 EPPO recommendations on *Sicyos angulatus*

*Sicyos angulatus* (Cucurbitaceae) is an annual herbaceous vine originating from North America which was intentionally imported into the EPPO region as an ornamental plant. However *S. angulatus* may also enter new territories with contaminated commodities such as maize grain, seeds, or through contaminated machinery, soil or footwear. It is a weed of maize, soybean and sorghum crops and is now established in at least 10 EPPO countries (Austria, Croatia, France (South West, weed), Italy (northern, possibly also in Sicilia, weed), Moldova (invasive plant), Romania, Russia, Serbia, Turkey, Ukraine (established in the western and central parts)).
The Pest Risk Analysis (PRA) for *Sicyos angulatus* was presented to the EPPO bodies and approved. This PRA concludes that *Sicyos angulatus* is very likely to spread further in the EPPO region and to cause moderate economic impacts on maize crops and that it would also have detrimental environmental effects. Neverthless, considering :

- the huge number of pathways, and their low to moderate probability to introduce the plant,
- the fact that the species is already widesperad in the EPPO region,
- the existing possibilities for the eradication and containment of *S. angulatus* in the early stages of invasion,

it was concluded that internal measures such as monitoring/surveillance and eradication actions were more appropriate options than the prevention of entry. Recommendations on the internal measures that can be taken against *S. angulatus* are laid down in the EPPO National regulatory control systems (PM9) which was approved by the EPPO Council in September 2010.

**Source:** EPPO (2010) Pest Risk Analysis Report on *Sicyos angulatus*. Unpublished. 34 p.

EPPO (2010) EPPO Datasheet on invasive alien plants. *Sicyos angulatus*. *Bulletin OEPP/EPPO Bulletin* **40**(3),401-406
http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2338.2010.02415.x/abstract

EPPO (2010) National regulatory control systems (PM 9/12(1)) on *Sicyos angulatus*. *Bulletin OEPP/EPPO Bulletin* **40**(3), 396-398
http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2338.2010.02413.x/abstract

**Additional key words:** invasive alien plants, risk analysis, management

**Computer codes:** SIYAN

## 2010/224 The EPPO prioritization process for invasive alien plants

Although invasive alien plants are gaining increased attention within EPPO countries, there is no existing widely agreed method to identify those alien plants that are considered invasive and represent the highest priority for pest risk analysis. In the framework of the ad hoc Panel on Invasive Alien Species, EPPO has proposed a prioritization process for invasive alien plants designed (i) to produce a list of invasive alien plants that are established or could potentially establish in the EPPO region and (ii) to determine which of these have the highest priority for an EPPO pest risk analysis.

Some species of the EPPO List of invasive alien plants (*Ailanthus altissima, Ambrosia artemisiifolia, Baccharis halimifolia, Buddleia davidii, Carpobrotus acinaciformis & C. edulis, Cortaderia selloana, Fallopia japonica, F. sacchalinensis* and *F. x bohemica, Ludwigia grandiflora* and *L. peploides)* and of the EPPO Alert List (*Akebia quinata, Alternanthera philoxeroides, Araujia sericifera, Cornus sericea, Delairea odorata, Eriochloa villosa, Fallopia baldschuanica, Hakea sericea, Humulus japonicus, Hydrilla verticillata, Microstegium vimineum, Myriophyllum heterophyllum, Nassella neesiana, N. tenuissima* and *N. trichotoma, Pistia stratiotes, Salvinia molesta, Sesbania punicea, Verbesina encelioides, Pennisetum setaceum)* have been assessed through the EPPO prioritization process, and the results are also presented in an article published in the EPPO Bulletin.
The EPPO group in charge of the development of the prioritization process will meet in February 2011 to assess further species listed in the EPPO system.

**Source:** Brunel S, Branquart E, Fried G, van Valkenburg J, Brundu G, Starfinger U, Buholzer S, Uludag A, Joseffson M & Baker R (2010) The EPPO prioritization process for invasive alien plants. *Bulletin OEPP/EPPO Bulletin* **40**, 407-422.

EPPO Secretariat (2010-11).

**Additional key words:** invasive alien plants, prioritization

**Computer codes:** AILAL, AJASE, AKEQI, ALRPH, AMBEL, BACHA, BIKBA, BUDDA, CBSAC, CBSED, CDTSE, CRWSR, ERBVI, HKASE, HUMJA, HYLVE, LUDPE, LUDUR, MCGVI, MYPHE, PESSA, PIIST, POLCU, REYBO, REYSA, SAVMO, SEBPU, SENMI, STDNE, STDTR, STDTN, VEEEN

**2010/225 Ecosystem services and invasive alien plants**

Humankind benefits from a multitude of resources and processes that are supplied by natural ecosystems. These benefits are known as ecosystem services and include products such as clean drinking water and processes such as the decomposition of waste. The definition of these services was formalized by the United Nations Millennium Ecosystem Assessment. The economic evaluation of ecosystem services contains uncertainties, but some figures are available. For instance, Costanza et al. (1997) estimated the economic value of ecosystem services in the world at 33 000 billion dollars (while the world PIB is estimated at 18 000 billion dollars). The Economics of Ecosystems and Biodiversity (TEEB) project estimated the economic value associated with the protection of hydrographic basins by coastal ecosystems (such as mangroves and other wetlands) at 845 USD/ha/year in Malaysia, and at 1022 USD/ha/year in Hawaii. Bee pollination is estimated at 361 USD/ha/year (Ricketts *et al.*, 2004).

The four following categories of ecosystem services are briefly described, and case studies of impacts of invasive alien species on ecosystem services for each of those categories are provided by Charles & Dukes (2007):

- **Provisioning services**: food and crops (including seafood and game), species, water, pharmaceuticals, energy (hydropower, biomass fuel).
  Crops are negatively affected by invasive species: livestock are affected indirectly by plants that decrease forage quality or quantity such as *Euphorbia esula* which is avoided by cattle in the west of the USA; water is a critical resource, and numerous invasive plants such as *Melia azedarach, Acacia mearnsii* or *Prosopis* spp. decrease available water through evapotranspiration.
- **Regulating services**: carbon sequestration and climate regulation, waste decomposition and detoxification, purification of water and air, crop pollination, pest and disease control.
  Invasives such as *Bromus tectorum* increase fire frequency and enhance emissions of carbon dioxide and monoxide as well as nitrogen oxides, decreasing the air quality; *Pueraria lobata* and *Eucalyptus* spp. emit a large amount of isoprene which is highly reactive in the atmosphere and enhances the production of air pollutants; *Spartina alterniflora* reduces light levels in salt marshes, potentially decreasing estuarine algal productivity; invasive plants also have negative effect on water quality, *Tamarix* spp. form thickets along riparian corridors enhancing sediment capture and channel narrowing; invasives may also threaten pollination services by luring pollinators from native species, as was shown with *Impatiens glandulifera* in Central Europe.
- **Supporting services**: nutrient dispersal and cycling, seed dispersal.
  Invasive species also directly impact supporting services. Aquatic plants such as *Eichhornia crassipes* can decrease macroinvertebrate abundance by blocking light transmission and decreasing photosynthesis by phytoplankton and other plants, leading to anoxic conditions. In many cases, invasive alien plants increase net primary productivity as it is the case with *Arundo donax* and *Phragmites* spp. in marshes. Soil formation may be indirectly affected by changes in decomposition rates, soil carbon mineralization and geomorphological disturbance processes, as well as succession. *Berberis thunbergii* and *Microstegium vimineum* which have invaded forests in the Eastern USA, can significantly alter microbial communities, leading to changes in nitrification and increased soil nutrient concentrations.
- **Cultural services**: cultural, intellectual and spiritual, recreational experiences (including ecotourism) and scientific discovery.
  Alteration of cultural services is far more difficult to assess, given the subjective nature of these services. In addition, aquatic macrophytes such as *Hydrilla verticillata* that form dense layers impeed boating, swimming and diving.

Terrestrial invasive alien plants may also form dense stands crowding out native species and diminishing recreational activities and tourism by making natural areas less accessible and by potentially reducing wildlife and rare-plant viewing, as it is the case for *Fallopia japonica* and *Opuntia stricta*. In the Galapagos, endemic plants have disappeared because of *Lantana camara* invasions.

The objective of the work on ecosystem services is to ultimately provide the necessary tools to decision makers to integrate the real value of ecosystem services in their decisions.

**Source:** Charles H & Dukes J (2007) Impacts of invasive species on ecosystem services. Biological invasions. *Ecological studies***193**, 217-237.
http://dge.stanford.edu/DGE/Dukes/Charles_Dukes_inpress.pdf

Costanza R, D'Arge R, de Groot R, Farber S, Grasso M, Hannon B, Limburg K, Naeem S, O'Neill RV, Paruelo J, Raskin RG, Sutton P & van den Belt M (1997) The value of the world's ecosystem services and natural capital, *Nature* **387**, 253-260.

Millennium Ecosystem Assessment Website http://www.maweb.org/en/index.aspx

Ricketts TH, Daily GC, Ehrlich PR & Michener C (2004) Economic value of tropical forest to coffee production, *Proceedings of the National Academy of Sciences of the United States of America* **101**(34), 12 579-12 582.

The Economics of Ecosystems and Biodiversity (TEEB), accessed on October 2010.
http://www.teebweb.org/

Wikipedia, Ecosystem services, accessed on October 2010.
http://en.wikipedia.org/wiki/Ecosystem_services

**Additional key words:** invasive alien plants, climate change

**Computer codes:** 1EUCG, 1PHRG, 1PRSSG, 1TAAG, ABKDO, ACAMR, BEBTH, BROTE, EICCR, EPHES, HYLLI, IPAGL, LANCA, LYTSA, MCGVI, MEIAZ, OPUST, POLCU, PUELO, SPTAL

## 2010/226 The Panel on Plant Health of the European Food Safety Authority develops guidance for the assessment of environmental risks of plant pests

The Scientific Panel on Plant Health of the European Food Safety Authority provides independent scientific advice on the risks posed by organisms which can cause harm to plants, plant products or plant biodiversity in the European Community. This Panel identified the need for detailed guidance on how to assess the environmental aspect of risk assessment linked to plant health issues, in line with the scope of Council Directive 2000/29/EC, as there are currently neither guidelines, nor standardized methodology supporting this procedure.
In its mandate, the Panel is requested to:

a) Review the current approaches and methodologies that assess environmental risks related to pests, including their strength and shortcomings within the EFSA context;
b) Recommend methodology to prepare an environmental risk assessment of pests as well as management options in order to support the Panel's guidance document on harmonised framework for pest risk assessment and in so doing prepare a list of the minimum data requirements.

Following the endorsement of the draft guidance document by the Panel, a public consultation will be launched in order to receive comments from the stakeholders and the scientific community. The delivery of the guidance document is expected by September 2011.

**Source:** Personal communication with the European Food Safety Authority (EFSA) (http://registerofquestions.efsa.europa.eu/roqFrontend/?wicket:interface=:1::::)

**Additional key words:** invasive alien species, assessment

## 2010/227 Invasive species, climate change and ecosystem-based adaptation

The report "Invasive Species, climate change and ecosystem-based adaptation: addressing multiple drivers of global change" is directed at policy-makers and intends to provide guidance on the best way to integrate invasive species prevention and management into the consideration of climate change responses across a range of sectors. In the report, climate change and invasive species interactions, ecosystem-based adaptation and the maintenance of ecosystem services are discussed. Case studies are provided and explore the intersection of invasive species, climate change and ecosystem services, divided according to the ecosystems and impacts.

**Coastal protection and integrity**: two major consequences of climate change are the likely increase in storm severity and sea level rise. For instance, the degradation and destruction of low land island system and wetland areas off the coast of Louisiana (US) is considered to have allowed Hurricane Katrina to hit New Orleans in 2005 with more impact. Examples of invasive plants in coastal ecosystems include *Vitex rotundifolia*, perennial shrub native to Asia and the Pacific and causing significant loss of dunes and coastal habitats in North and South Carolina because its root system causes erosion.

**Freshwater services and availability**: climate change is expected to have major impacts on precipitation levels and timing, as well as on broad hydrological cycles. Africa is one of the most vulnerable continents to climate change and climate variability. Throughout the world, there are a number of invasive species known to affect freshwater availability and services. *Arundo donax*, originating from Eurasia is having significant impacts on the hydrology of South Africa, it alters stream hydrology and sedimentation and increases the risk of flooding.
*Eichhornia crassipes* is also known to interfere with fishing activities, boating, irrigation, water treatment, hydroelectric power, human health, tourism and lake's natural ecosystem.

**Agriculture, livestock and food security**: the effects of climate change will add stress to agricultural systems, specifically by increasing invasive species that impact crop and livestock production. Invasive species, in the form of plants, animals, insects and diseases, are already arguably the largest impediment to global food security and agricultural productivity. Increased outbreaks in invasive pathogens will also result in further economic strain on exporting countries due to trade bans and costs of meeting sanitary and phytosanitary requirements. There is also an increasing amount of evidence that demonstrates a decline in chemical efficacy of herbicides on invasive alien plants with rising $CO_2$.

Other topics such as fisheries and marine ecosystems, human and wildlife health are also discussed. The use of biofuels as a climate change mitigation method has also gained considerable attention, in particular second generation biofuels derived from lingo-cellulosic crops. A review of almost 40 crops considered for biofuels found that about 75% of them had some record of being invasive, and the use of risk assessments is recommended before introducing such crops. Examples of crops used for biofuels that have records of invasive behavior include *Jatropha curcas, Phalaris arundinacea* and *Prosopis juliflora*.

**Source:** Burgiel SW, Muir AA (2010) Invasive Species, climate change and ecosystem-based adaptation: addressing multiple drivers of global change. Global invasive species program. 55 pp.
http://www.gisp.org/whatsnew/docs/Climate_Change_ReportA4.pdf

**Additional key words:** invasive alien plants, climate change **Computer codes:** ABKDO, IATCU, PRCJU, TYPAR, VIXRO

## 2010/228 Outcome on invasive alien species of 10th Conference of the Parties of the Convention on Biological Diversity (Nagoya, JP, 2010-10-18/29)

Governments meeting at the 10th Conference of the Parties to the Convention on Biological Diversity (CBD COP10) in Nagoya (JP) on 201-10-18/29 have approved a new Strategic Plan for the next ten years to reduce the current pressures on the planet's biodiversity.

A document was adopted on Invasive Alien Species and can be found on the website of the Convention on Biological Diversity. An *ad hoc* Technical Expert Group (AHTEG) was created to further explore issues concerning invasive alien species introduced as pets, aquarium and terrarium species, and as live baits and live food. The mandate of the AHTEG is to identify and consider relevant, specific and concrete tools, voluntary Codes of conduct, methodologies, guidance, best-practice examples and instruments including possible regulatory mechanisms for addressing the risks associated with the introduction of alien species as pets, aquarium and terrarium species and as live bait and live food, including for:

- controlling, monitoring and prohibiting, where appropriate, export, import and transit at local, national, and regional level, taking into account national legislations where applicable;
- controlling internet trade, associated transport and other relevant pathways;
- developing and utilizing risk assessment and risk management;
- developing and utilizing early-detection and rapid response systems;
- regulating the export, import and transit of potentially invasive alien species traded as pets likely to be released;
- raising public awareness- and disseminating information;
- enhancing transboundary where appropriate, regional cooperation and approaches.

Biodiversity-related conventions and relevant international organizations such as the World Organization for Animal Health (OIE) or the International Plant Protection Convention (IPPC) will be consulted.

The conference of the parties also recognized the importance of regional collaboration, the need to address the risks from invasive alien species used as biofuel crops and for carbon sequestration. It was also requested that information is compiled on the adaptation of biodiversity and ecosystems to climate change, to promote cooperation on the

management of invasive alien species in particular in river basin, to incorporate the lessons learned on regional island collaboration to manage the threat of invasive alien species and to ensure the participation of indigenous and local communities in addressing invasive alien species.

**Source:** IUCN News - Press Release http://www.iucn.org/?6406/Deadline-Life--Nagoya-defines-future-for-life-on-earth

Convention on Biological Diversity Website, COP 10 in session documents http://www.cbd.int/cop10/insession/

**Additional key words:** invasive alien plants

## 2010/229 International Symposium on 'System Intensification towards Food & Environmental Security' (Kalyani, IN,2011-02-24/27)

The Crop and Weed Science Society (CWSS), Bidhan Chandra Krishi Viswavidyalaya (BCKV) in collaboration with NABARD, KOLKATA will organize the International Symposium on 'System Intensification towards Food & Environmental Security', Kalyani (IN) on 2011-02-24/27.
Contributions are invited from agricultural scientists, researchers, technologists, industry and policy planners for both oral and poster presentations on the following themes related to System intensification in Agriculture; Horticulture, Agricultural Engineering, Mixed Farming systems, and Supporting Policies

1) Biodiversity; invasive plants; seed production systems, biotech planting materials; evaluation of cultivars better adapted to climate changes.
2) Sustainable use of the natural resources for nutrients, organic farming, integrated nutrient management; biofertilizers.
3) Water resources strategies in system intensification.
4) Invasive pests (including IAPs and classical pests) threats and their environmentally safe management.
5) Methodologies for producing high quality, hygienic and safe products.
6) Farmers' innovative methodologies in system intensification.
7) Options for income generation through diversification of crops/added value.
8) Socio-economic, policy and market implications, including institutional/corporate/NGO arrangements for livelihood security.

**Source:** The Crop and Weed Science Society (CWSS) website http://cwssbckv.org/

**Additional key words:** conference, invasive alien plants **Computer codes:** IN

**2010/230 3rd International Symposium on Weeds and Invasive Plants (Agricultural Weeds and Plant Invaders) 2011-10-02/07 in Ascona (Monte Verità, CH)**

The 3rd International Symposium on Weeds and Invasive Alien Plants will be organized on 2011-10-02/07 in Ascona (CH). The focus of this symposium is to stimulate and advance discussion among researchers in weed biology and plant invasions. Both weeds in agro-ecosystems and natural environments are of increasing concern in our society. The deadline for abstract submission is open untill the 31st of December.

**Source:** European Weed Research Society Website.
http://invasive.weeds.ascona.ewrs.org/default.asp

**Additional key words:** conference, invasive alien plants **Computer codes:** CH