

ANNEX A

UK PEST RISK ANALYSES AND MANAGEMENT DECISIONS

1. UK requests for consideration of new or amended status in EC Plant Health legislation

a. Strawberry latent C virus

Strawberry latent C virus is listed in Annex IAI of Directive 2000/29/EC and is included in the EPPO A1 list and also EPPO certification standard, but is not recognised as a species in the list published by the International Committee on Taxonomy of Viruses. There is still no defined agent for this disease, no reference isolate is available and therefore it cannot be tested. It is proposed therefore that the listing should be reviewed.

The ICTV entry is:

<http://phene.cpmc.columbia.edu/ICTVdB/01.062.0.90.309.htm>

b. *Cacoecimorpha pronubana* (Mediterranean carnation leaf-roller) – PRA available at

<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/cacoecimorphaPronubana.pdf>

Cacoecimorpha pronubana is the subject of EC Directive 74/647/EEC that lays down requirements needed by EU Member States to inhibit the spread of *C. pronubana*. However, given the widespread distribution of the organism within the EU already, consideration is being given to repealing the Directive. A PRA has been prepared to inform policy discussions and develop a UK position as to whether to support repeal of 74/647/EEC.

The Mediterranean carnation leaf-roller is widespread across the UK and has been present here for over 100 years. Multiple overlapping generations occur outdoors each year and it can also occur in protected conditions. No statutory action has ever been taken on plant material infested with *C. pronubana* landed in the UK on 75 previous findings. *C. pronubana* is a pest that can be managed by the domestic horticulture industry given that there are effective chemical controls and physical methods available for commercial management of the pest.

This PRA supports the repeal of Council Directive 74/647/EEC, in order to focus on pests of more immediate concern.

c. *Diaspidiotus perniciosus* (San Jose Scale) – PRA available at <http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/sanJoseScale.pdf>

San José scale (as *Q. perniciosus*) was first regulated across Europe through a European Control Directive (69/466/EEC) that was published in 1969. Subsequently 69/466/EEC was substantially amended and in the interests of clarity and rationality it was codified in 2006 as Council Directive 2006/91/EC on control of San José Scale, repealing the 1969 directive. However, given the widespread distribution of the organism within the EU already and the understanding that the organism would not be of significance in northern Europe if it were to spread, consideration is being given to repealing the 2006 Directive. A PRA has been prepared to inform policy discussions and develop a UK positions as to whether to support repeal of 2006/91/EC.

If it were able to enter the UK it is likely to be able to establish in the UK (southern England) but not to reach high population densities that would cause economic damage to commercial orchards and amenity plants, except during a period of sustained unusually warm years. A complex of natural enemies already present in the UK would help suppress population densities. Although *D. perniciosus* is not well suited to UK environmental conditions, it is likely to be able to establish in southern England if it entered on nursery stock. However, damage would not be expected in most years since only one generation is likely to be possible, and economic damage is only reported in regions with multiple generations per year.

Given that the organism is widely distributed elsewhere in Europe the PRA supports repeal of 2006/91/EC to allow plant health resources to focus on pests of more immediate concern.

d. *Epichoristodes acerbella* (South African leaf-roller) – PRA available at <http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/epichoristodesAcerbella.pdf>

Epichoristodes acerbella is the subject of EC Directive 74/647/EEC that lays down requirements needed by EU Member States to inhibit spread of carnation leaf-rollers. Consideration is being given to repealing the Directive. A PRA has been prepared to inform policy discussions and develop a UK position as to whether to support repeal of 74/647/EEC.

Based on current knowledge *E. acerbella* is likely to enter the UK and find a suitable host. While establishment of *E. acerbella* outdoors seems unlikely, establishment in UK glasshouse crops is considered to be likely if the pest enters on cut flowers since imports are still packed at some production sites.

Although technically regulated by 74/647/EEC, no measures were taken against *E. acerbella* on the few occasions it has been intercepted in the UK. There have been no outbreaks of this pest in UK glasshouses following interceptions. *E. acerbella* is also covered by the EC Marketing Directive 93/49/EEC, which is implementing Directive of 98/56/EC. By repealing 74/657/EEC, it is not clear whether UK growers will be exposed to significant additional plant health risk from *E. acerbella*. An early

UK risk assessment from 1979 (Anon., 1979), supported by this PRA, rated *E. acerbelli* as a pest that is likely to be of economic significance under glass. In the 30 years since then there have been no serious incidents involving this pest, but it is not clear what role the legislation and inspections have had in this success. On balance, therefore, the repeal of Directive 74/647/EEC is supported.

e. *Columnea latent viroid* – PRA available at

<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/clvd.pdf>

In 2007, there were four UK outbreaks of CLVd in glasshouse grown tomato plants, which were symptomatic (cv. Santa) (EPPO, 2008; Nixon *et al.*, 2009). A further outbreak was also confirmed in 2009 in two cultivars (Santazian and Angelle) at a tomato production nursery.

A PRA has been undertaken to assess the risk of further entry into the UK, as well as the risk of establishment in and economic impact to tomato, and other known and potential hosts. Given the risks and potential impacts identified it is recommended to consider CLVd for listing as a IAI quarantine pathogen with specific requirements for seed and plants for planting of tomato in Annex IVAI as well as IVAII. Consideration should also be given to measures including surveillance for the known ornamental hosts of CLVd all of which are asymptomatic and which may be harbouring the viroid. The results of a project by the UK's Horticultural Development Company on detecting and eliminating solanaceous viroids in tomato seeds and seedlings and the EUPHRESKO Project 'Detection and Epidemiology of Pospiviroids' (DEP) should be used to help formulate the measures if it is agreed that the viroid should be regulated.

EPPO, 2008. European and Mediterranean Plant Protection Organisation website. First report of *Columnea latent viroid* on tomatoes in the United Kingdom. <http://archives.eppo.org/EPPOReporting/2008/Rse-0801.pdf>

Nixon T, Glover R, Mathews-Berry S, Daly M, Hobden E, Lambourne C, Harju V, Skelton A, 2009. *Columnea latent viroid* (CLVd) in tomato: the first report in the United Kingdom. New Disease Reports [<http://www.bspp.org.uk/publications/new-disease-reports/volumes.php>] Volume 19.

2. Organisms where no statutory action will be taken in the UK

a. Commodity PRA for cultivated mushrooms (*Agaricus bisporus*) – PRA available at

<http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/agaricusBisporus.pdf>

The majority of harmful organisms of mushroom are already present in the UK. However, there are 3 pathogens, 2 weed moulds and 35 invertebrate pests that are absent. A PRA was carried out and concluded that these species do not pose new risks for UK mushroom growers, as they already manage similar risks presented by existing related organisms. However, *Trichoderma aggressivum* forma *aggressivum*, the main cause of green mould in North America, may still pose a threat.

From this analysis, it is considered that testing imported spawn may be useful in preventing the movement of harmful organisms be they indigenous or non-indigenous. There has been some movement of harmful organisms in mushroom production recently, such as the movement of *Trichoderma* species into central Europe (Hatvani *et al.*, 2007) and the recent movement of *Verticillium fungicola* var. *fungicola* from Europe into North America (Largeteau *et al.*, 2004). Testing of spawn imports, at least those from non-Member States could be considered, in order to minimise the risk from new exotic pathogens, weed moulds and pests of mushroom.

An EPPO protocol for testing spawn imported into the EPPO region could also be produced. This analysis has also highlighted that there are several species that are already present in the UK and have the potential to affect mushroom crops, but have not yet been observed affecting mushroom production to date. *Verticillium fungicola* var. *aleophilum* is one such species. Mushroom growers are recommended to remain vigilant against such organisms.

Hatvani L, Antal Z, Manczinger L, Szekeres A, Druzhinina IS, Kubicek CP, Nagy A, Nagy E, Vágvölgyi C, Kredics L, 2007. Green mould diseases of *Agaricus* and *Pleurotus* species are caused by related but phylogenetically different *Trichoderma* species. *Phytopathology* **97**, 532-537.

Largeteau ML, Mata G, Savoie J-M, 2004. *Verticillium fungicola* var. *fungicola* affects *Agaricus bisporus* cultivation in Mexico. *FEMS Microbiology Letters* **236**, 191-196.

b. *Ophelimus maskelli* (A gall wasp of *Eucalyptus*) - PRA available at <http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/documents/ophelimusMaskelli.pdf>

In November 2004, *Eucalyptus* trees at a retail plant nursery in Yorkshire were found to have leaves infested with galls, suspected as either *O. eucalypti*, *O. maskelli* or *Leptocybe invasa*. Since no adults were present with the sample, the diagnosis could not be taken further. In April 2005 a species of gall-causing eulophid wasp, new to the UK, was found in private gardens in London (Lambeth and Wimbledon) (Tilbury & Jukes, 2006). The identity of the organism has not been confirmed but it is very similar to *O. maskelli* and it could be an intraspecific variant of *O. maskelli* or an undescribed species of *Ophelimus*. This PRA assumes that the organism in London will be confirmed as *O. Maskelli* or has such similar biology that the risk it presents is no different to that presented by *O. maskelli*. *Ophelimus maskelli* may be more widely distributed in the UK than is currently known. Although damaging to some *Eucalyptus* species *O. maskelli* does not present a major threat to UK plant health. *Ophelimus maskelli* is a more significant pest for southern EU member states, since it can be a serious pest to the widely grown *E. camaldulensis* that is planted for forestry in Cyprus, Greece, Italy, Malta, Portugal and Spain (CABI, 2005). Southern member states could consider investigating the release of *Closterocerus* to control *O. maskelli*.